

SERVICE MANUAL

BE-3D CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
KV-32WS2B	RM-862	French	SCC-K01V-A	KV-32WS2U	RM-862	UK	SCC-K04R-A
KV-32WS2D	RM-862	AEP	SCC-K07W-A				



TRINITRON® COLOR TV
SONY®




ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
French	B/G/H, D/K, L, I	GERMAN/NICAM Stereo	VHF : E2-E12, S01-S03, R1-RX11, F2-F10, B-Q UHF : E21-E69, - B21-B69, R21-R69, F21-F61 CABLE TV : S1-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
AEP	B/G/H, D/K	GERMAN Stereo	VHF : E02-E12, R01-R12, A-H2 UHF : E21-E69, - R21-R69 CABLE TV : S01-S05, S1-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
UK	I	NICAM Stereo	UHF : B21-B69	PAL NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	32WS2B	32WS2D	32WS2U
Power Consumption	105 W	105 W	163 W





[PICTURE TUBE] Super Trinitron Wide
Approx. 82cm (32 inches)
(Approx. 76 cm picture measured diagonally)
110 degree deflection

Input/Output Terminals

[REAR]

- ➔  1 21-pin Euro connector (CENELEC standard).
- Inputs for Audio and Video signals.
- Inputs for RGB.
- Outputs of TV Video and Audio signals.
- ➔  2 21-pin Euro connector.
- inputs for Audio and Video signals.
- inputs for S Video.
- outputs for Audio and Video signals (selectable).
- ➔  Phono Jack
- Outputs for Audio Signals
- Left/Right Speaker Terminals
- Surround Speaker Terminals

[FRONT]

- ➔  3 Video input - phono jack
- ➔  3 Audio inputs - phono jacks
- ➔  3 S Video input 4 pin DIN
-  Headphone jacks : stereo minijack

Sound output

- Left/Right 2x15W (Music Power)
- Centre 2x5W (Music Power)
- Surround 2x10W (Music Power)
- Power requirements 220 - 240V
- Dimensions Approx 906x552x566mm approx.
- Weight Approx 60kg
- Supplied accessories RM-862 Remote Commander (1)
IEC designated R6 battery (2)
- Other features Dolby Pro Logic, NICAM*, FASTEXT
*(KV-32WS2B/32WS2U only)


[RM-862]

- Remote control system infrared control
- Power requirements 3V dc
2 batteries IEC designation
R6 (size AA)
- Dimensions Approx 210x56x24mm (w/h/d)
- Weight Approx 110g (Not including battery)

Design and specifications are subject to change without notice.

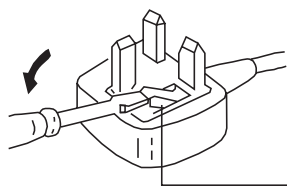
Model Name Item	KV-32WS2B	KV-32WS2D	KV-32WS2U
Pal Comb	OFF	OFF	OFF
PIP	OFF	OFF	OFF
Woofer Box	OFF	OFF	OFF
Scart 1	ON	ON	ON
Scart 2	ON	ON	ON
Front in (3)	ON	ON	ON
Scart 4	OFF	OFF	OFF
Projector	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON
Norm B/G/H	ON	ON	OFF
Norm I	ON	OFF	ON
Norm D/K	ON	ON	OFF
Norm AUS	OFF	OFF	OFF
Norm L	ON	OFF	OFF
Norm SAT	OFF	OFF	OFF
Norm M	OFF	OFF	OFF
Teletext	ON	ON	ON
Nicam Stereo	ON	OFF	ON
Language Preset	French	German	English

WARNING (KV-32WS2U only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

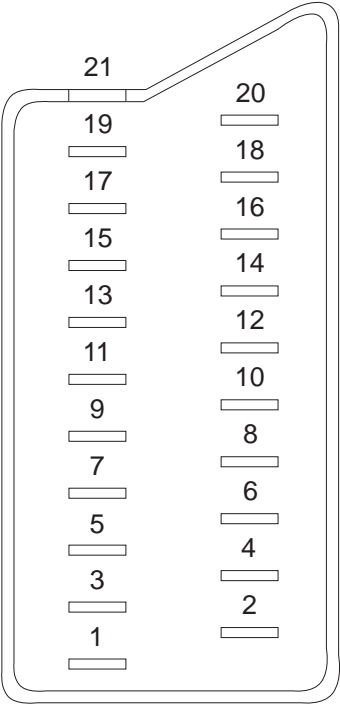
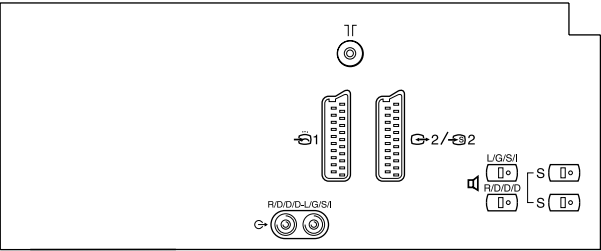
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR THE OUTLET SOCKETS IN YOUR HOME, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE OUTLET SOCKET.

When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



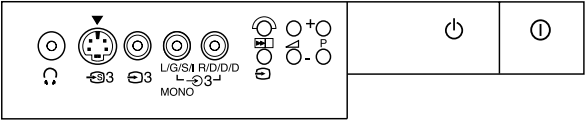
How to replace the fuse.
Open the fuse compartment with a screwdriver blade and replace the fuse.

21 pin connector (→ 1, → 2 / → S 2)



Pin No	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedance : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	-	-	Red input	0.7 +/- 3dB, 75 ohms, positive
16	○	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
17	○	○	○	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedance : 75 ohms
18	○	○	○	Ground (video output)	
19	○	○	○	Ground (video input)	
20	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
22	○	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
23	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz



Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V +/- 3dB 75 ohm, positive Sync 0.3V -3/+10dB
4	C (S signal) input	0.3V +/- 3dB 75 ohm, positive Sync

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.


ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

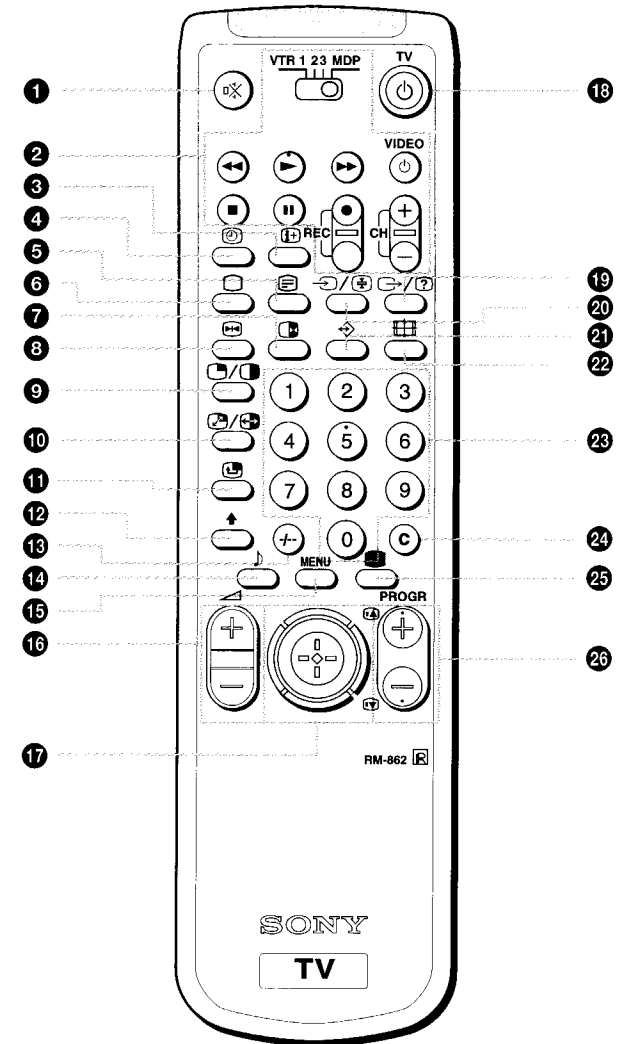
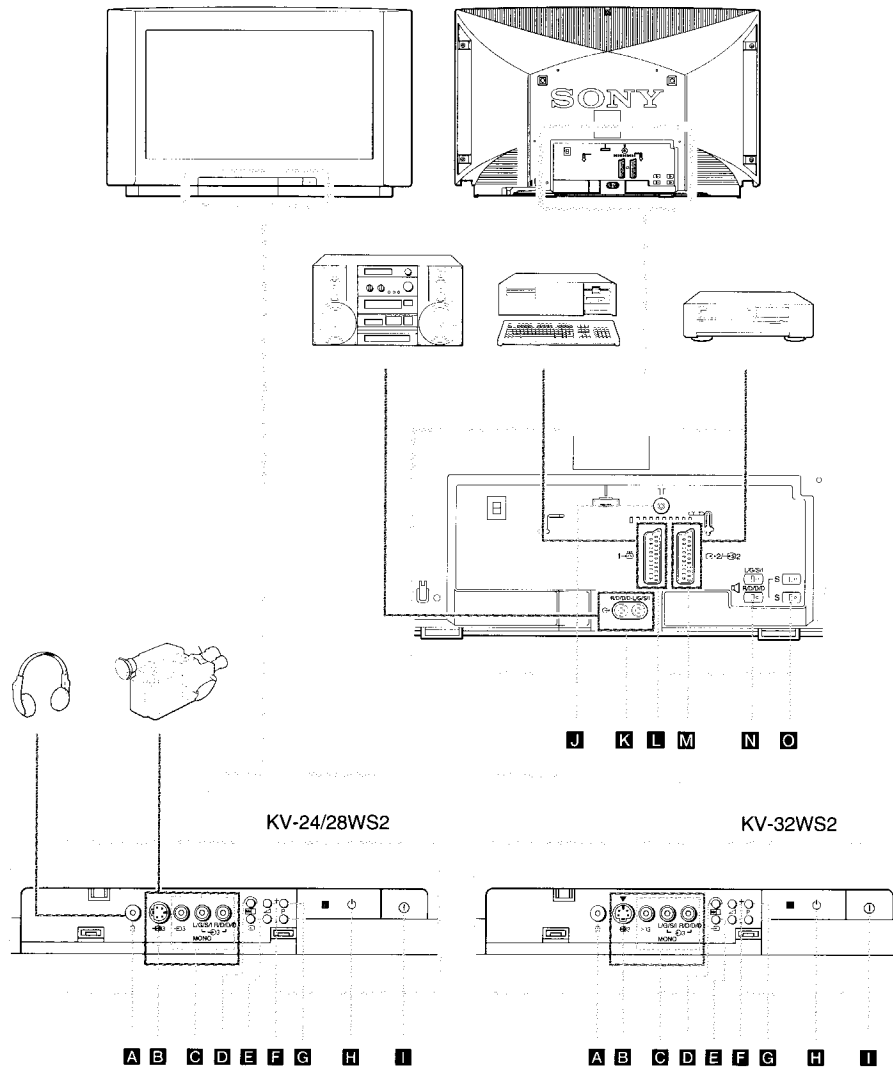
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ !!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL














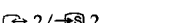

The operating instructions mentioned here are partial abstracts from the Operating Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

























Overview

This section briefly describes the controls and the buttons on the TV set and on the Remote Commander. Please open the flap at the front of the Instruction manual for illustrations of the TV set and the Remote Commander. Letters in boxes refer to the buttons on the TV set, numbers in circles to the buttons on the Remote Commander. For more information, refer to the page numbers given next to each description.

TV-Buttons and Terminals

Reference and Symbol	Name	Refer to Page
Front of the set		
A 	Headphones jack	33
B 	S video input jack	33
C 	Audio/video input jacks	33
D 	Automatic Preset button	12
E 	Input mode button	14
F 	Volume control	13
G 	Programme button	13
H 	Standby mode indicator	13
I 	Main power switch	13
Rear of the set		
J 	Aerial socket	11
K 	Audio phono jacks	33
L 	21 pin Euro connector	33
M 	21 pin Euro connector	33
N 	Left/Right speaker terminals	10
O 	Surround speaker terminals	10

Remote Commander Operation

Reference and Symbol	Name	Refer to Page
1 	Muting on/off button	13
2	VCR operation	36
VTR123MDP	Video equipment selector	36
	Video equipment operation buttons	36
VIDEO  CH +/-		
3 	On-screen display button	13
4 	Time display button	13
5 	Teletext button	14
6 	TV power on/TV mode button	13, 14
7 8 9 10 11 12	No function on this set	-
13 	Double digit entering button	13
14 	Sound mode button	20
15 MENU	Menu on/off button	15
16 	Volume control button	13
17 	Joystick for menu selection. Press to confirm selection (OK function)	15
18 	TV standby button	13
19 	No function on this set	-
	Teletext: reveal button	31
20 	Input mode button	14
	Teletext: Freezing the subpage	31
21 	Teletext: Favourite pages button	32
22 	Button to change screen format	14
23 	Number buttons	13
24 	Direct channel button	14
25 	Picture mode button	20
26 PROGR +/-	Programme buttons	13
	Teletext: Page up/page down buttons	14

Do not switch on the TV before you connect the speakers.

Dolby (*) Pro Logic Surround normally requires 5 speakers:

Centre speaker (incorporated in the TV set)

Centre speaker (incorporated in the TV set)

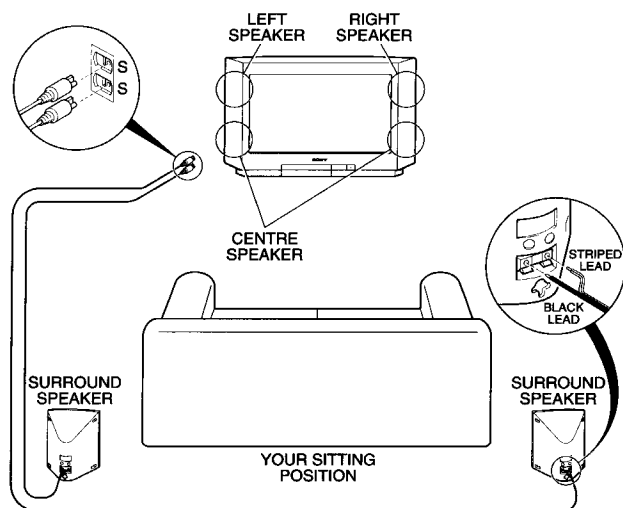
- for anchoring the stable sound image, like dialogue, to the TV screen

Left and Right front speakers (incorporated in the TV set)


- for the normal two channel stereo or bilingual broadcasts

Surround speakers

- for the special effects created by the surround channel



- Connect the speakers using the leads provided. The striped lead (+) is for the red terminal of the speaker and the black lead (-) is for the black terminal.
- If you use your own speakers, make sure they are at least 8Ω impedance and are magnetically shielded. Otherwise picture distortion may occur.

(*) Manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY, the double-D symbol  and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

Step 2

(If you connect a VCR, skip to step 3)

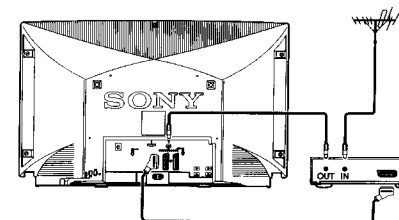
Insert the aerial plug tightly into the aerial socket **7 J**. Use a good-quality aerial cable (not supplied), corresponding to the relevant regulations.

Step 3

Connecting a VCR

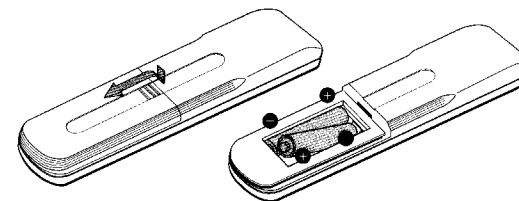
We recommend that you tune in the VCR signal to programme number "0". For details, see "Presetting Channels Manually" on page 17.

See "Connecting Optional Equipment" on page 33 for more information.



Step 4

Inserting the Batteries Into the Remote Commander





Respect your environment! Dispose of used batteries in an environmentally friendly way.

Step 5

Presetting Channels Automatically

With this function, the TV can automatically search and store up to 100 different channel numbers.

If you prefer manual presetting, refer to "Presetting Channels Manually" on page 17.

- 1** Plug into mains.
Press the power switch  on the TV set.
- 2** Press and hold the button  **D** on the TV set until the automatic menu is displayed and the search starts.

After all available channels are stored, the normal TV picture is shown.















Note: Channels are automatically stored as follows:

Programme 1	BBC1
Programme 2	BBC2
Programme 3	ITV
Programme 4	CH4 or S4C
Programme 5	CH5 (if available in your area)

TV Operation

TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the remote commander (numbers in circles). All basic functions are also available on the TV set (letters in boxes). Open the flap at the front of the Instruction Manual to see the illustrations of the Remote Commander and the TV set.

To	Press
Switch on	 I on TV
Switch off temporarily	 16 TV is now in standby mode and  H indicator on TV lights up.
Switch on from standby mode	 6 , PROGR +/-  26 G or any number button 23
Switch off completely	 I on TV To save energy, switch off your TV completely when TV is not in use.
Select programmes	PROGR +/-  26 G or number buttons 23 For double digit number, press -/-  13 then the number e.g. For 23, press -/-  13 then 2 and 3.
Display on screen indications	 3 . Press again to make the indications disappear.
Adjust the volume	 + or -  16 F
Mute the sound	 1 . Press again to restore the sound.
Display the time (only available when teletext is broadcast)	 4 . Press again to make the display disappear.

TV Operation (continued)

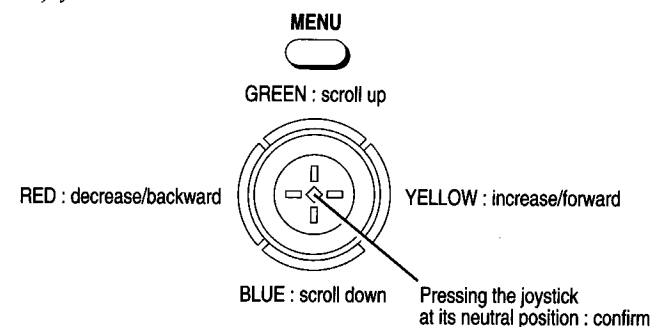
To	Press
Tune in a channel temporarily	C 24. The indication "C" appears. Enter the double digit number. e.g. For 4, press 0 then 4.
View video input picture (see page 34 for detailed information)	↶ 20 E repeatedly until the desired video input appears. Press □ 6 to restore the TV picture.
Operate Screen Mode (see page 19 for detailed information)	⌂ 22 4:3 → Smart → Zoom → Wide When using zoom mode, select 'scroll' to see the cut-off part of the screen.
View teletext (see page 31 for detailed information)	
Switch on	≡ 5
Select a page	three number buttons 23 or ⏮ 26 (for next page) or ⏭ 26 (for previous page).
Use fastext	Push joystick 17 to select a colour.
Switch off	□ 6

Advanced Operations

Adjusting and Setting the TV Using the Menu

You can adjust and set various functions on the TV using the following remote commander buttons:

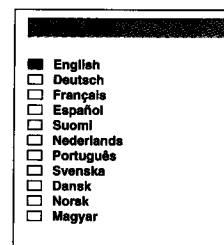
- 1 Press **MENU** 15 to switch menu on/off.
- 2 Use the joystick 17 as follows.



Choosing the Menu Language

This function enables you to change the language of the menu screens.

- 1 Press power switch 1 on the TV. If the standby indicator 14 on the TV is lit, press **□** 6 or a number button 23 on the Remote Commander.
- 2 Press the **MENU** button 15 on the remote commander.





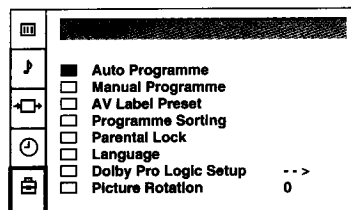
- 3 Push to blue or green to select the language you want then push to yellow.
- 4 Press the **MENU** button 15 to restore the normal TV picture.

Presetting Channels Automatically

You may have already preset the channels automatically by using the method shown on page 12. You can also preset channels automatically by using the remote commander as follows:

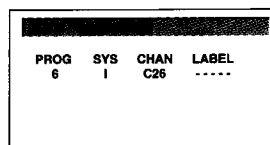
- 1 Press the MENU button .

- 2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.



- 3 Push to blue or green to select 'Auto Programme'.

- 4 Push to yellow and hold until the automatic menu is displayed and the search starts.
After all available channels have been preset, the normal TV picture is shown.





Note: Channels are automatically stored as follows:

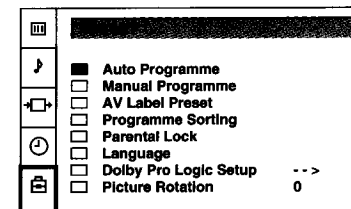
Programme 1	BBC1
Programme 2	BBC2
Programme 3	ITV
Programme 4	CH4 or S4C
Programme 5	CH5 (if available in your area)

Presetting Channels Manually

This function enables you to preset channels one by one to different programme numbers. This is also convenient for allocating programme numbers to various video input sources.

- 1 Press the MENU button .

- 2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.






- 3 Push to blue or green to select 'Manual Programme' then push to yellow.

PROG	SYS	CHAN	LABEL	AFT
<input type="checkbox"/> 0	I	C29	----	ON
<input type="checkbox"/> 1	I	C31	----	ON
<input type="checkbox"/> 2	I	C32	----	ON
<input type="checkbox"/> 3	I	C36	----	ON
<input type="checkbox"/> 4	I	C37	----	ON
<input checked="" type="checkbox"/> 5	I	C40	----	ON
<input type="checkbox"/> 6	I	C41	----	ON
<input type="checkbox"/> 7	I	C44	----	ON
<input type="checkbox"/> 8	I	C49	----	ON
<input type="checkbox"/> 9	I	C52	----	ON

- 4 Push to blue or green to select on which programme number you want to preset a channel then push to yellow.

- 5 Push to blue or green to select the TV broadcast system 'I' or a video input source (AV1, AV2,...) then push to yellow twice.



- 6 Select the first number digit of 'CHAN' (channel) then the second number digit of 'CHAN' with the number buttons  on the remote commander
or
Push joystick  to blue or green to search for the next available channel.

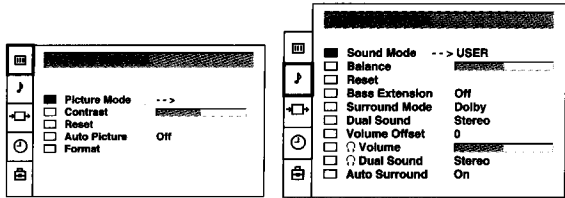
- 7 If you want to store the channel, go to step 8. If not, select a new channel using the number buttons  on the remote commander or push to blue or green to resume the search.

- 8 Press the joystick 17.
- 9 Repeat steps 4 to 8 to preset other channels.
- 10 Press the MENU button 15 to restore the normal TV picture.

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste.

- 1 Press the MENU button 15.
- 2 Push joystick 17 to blue or green to select  for picture control or  for sound control then push to yellow.
- 3 Push to blue or green to select the desired item then push to yellow.
- 4 Push to red or yellow to alter the item then press the joystick 17.
For the effect of each control, see the following tables.
- 5 Repeat steps 3 and 4 to adjust the other items.
- 6 Press the MENU button 15 to restore the normal TV picture.



Adjusting the Picture and Sound (continued)

PICTURE CONTROL	Effect
Picture Mode	<ul style="list-style-type: none"> • User → Game → Movie → Sports → Live In 'User' mode, you can preset Brightness, Colour, Sharpness and Hue (NTSC signals only) as follows: <ol style="list-style-type: none"> 1 Push joystick 17 to blue or green to select the desired item then push to yellow. 2 Push to red or yellow to adjust then press the joystick 17. 3 Push to red to return to the PICTURE CONTROL menu.
Contrast	<ul style="list-style-type: none"> • Darker — | — Brighter
Reset	<ul style="list-style-type: none"> • Resets picture to the factory preset levels.
Auto Picture	<ul style="list-style-type: none"> • All the picture levels automatically change according to the surrounding lighting level. (Auto Picture Control)
Format	<ul style="list-style-type: none"> • There are three options. Format (4:3 → Smart → Zoom → Wide), Scroll or Auto 16:9. To preset these, follow the procedure below. <ol style="list-style-type: none"> 1 Push joystick 17 to blue or green to select the desired item then push to yellow. 2 Push to red or yellow to change the setting then press the joystick 17. 3 Push to red to return to the PICTURE CONTROL menu.
	Format/Scroll Once 'Zoom' has been selected in 'Format' mode, you can then choose the 'Scroll' function to scroll the screen upwards or downwards to see the cut-off part (e.g. subtitles) or after selecting 'Zoom' and returning to the normal picture, push joystick 17 to blue or green to scroll then press joystick 17. Auto 16:9 Automatically selects 16:9 picture mode when receiving a 16:9 broadcast (set to 'Off' if signal reception is weak).

Adjusting the Picture and Sound (continued)

SOUND CONTROL	Effect
Sound Mode	<ul style="list-style-type: none">•User → Rock → Jazz → PopIn 'User' mode, you can preset Treble and Bass as follows.1 Push joystick 17 to blue or green to select the item then push to yellow.2 Push to red or yellow to adjust then press the joystick 17.3 Push to red to return to the 'SOUND CONTROL' menu.
Balance	<ul style="list-style-type: none">•Left —|— Right
Reset	<ul style="list-style-type: none">•Resets sound to the factory preset levels.
Bass Extension	<ul style="list-style-type: none">•Boosts bass by a fixed amount.
Surround Mode	<ul style="list-style-type: none">•Choice among special sound effects.Pro Logic → Pseudo Stereo → Spatial → Club → Theatre → Hall → Church → Stadium → Off
Dual Sound	<ul style="list-style-type: none">•A: Left channel → B: Right channel → stereo → mono
Volume Offset	<ul style="list-style-type: none">•Presets the volume level for individual programmes.-12 — 0 — +12
Volume	<ul style="list-style-type: none">•Adjusts the headphone volume.
Dual Sound	<ul style="list-style-type: none">•Selects the headphone channels.A: Left channel → B: Right channel → stereo → mono
Auto Surround	<ul style="list-style-type: none">•Automatically selects Pro Logic Surround sound when transmitted. (set to 'Off' if signal is weak).

Changing Modes Quickly

You can quickly change the Surround Mode or the Picture Mode without entering the 'SOUND CONTROL' or the 'PICTURE CONTROL' menu.

- 1 Press **25** for the picture or **14** for the sound.
- 2 Push joystick **17** to blue or green to select the desired mode.
- 3 Press **25** or **14** again to restore the normal TV screen.

Manual Fine-Tuning




Normally, the automatic fine-tuning (AFT) function is operating. If the picture is distorted however, you can manually fine-tune the TV to obtain a better picture reception.

- 1 Press the MENU button **15**.
- 2 Push joystick **17** to blue or green to select the symbol on the menu screen then push to yellow.
- 3 Push to blue or green to select 'Manual Programme' then push to yellow.

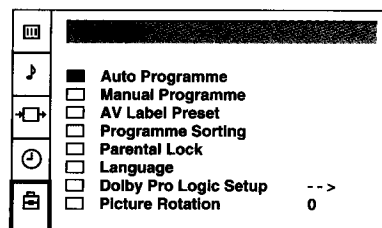
PROG	SYS	CHAN	LABEL	AFT
<input type="checkbox"/> 0	I	C29	.....	ON
<input type="checkbox"/> 1	I	C31	.....	ON
<input type="checkbox"/> 2	I	C32	.....	ON
<input type="checkbox"/> 3	I	C36	.....	ON
<input checked="" type="checkbox"/> 4	I	C37	.....	ON
<input type="checkbox"/> 5	I	C40	.....	ON
<input type="checkbox"/> 6	I	C41	.....	ON
<input type="checkbox"/> 7	I	C44	.....	ON
<input type="checkbox"/> 8	I	C49	.....	ON
<input type="checkbox"/> 9	I	C52	.....	ON
- 4 Push to blue or green to select the programme number which corresponds to the channel you want to manually fine-tune.
- 5 Push to yellow repeatedly until the AFT position changes colour.
- 6 Push to blue or green to fine tune the channel frequency (-15 to +15).
- 7 Press the joystick **17**.
- 8 Repeat steps 4 to 7 to fine-tune other channels.
- 9 Press the MENU button **15** to restore the normal TV picture.

Sorting Programme Positions

This function enables you to exchange the programme positions.


- 1 Press the MENU button .
- 2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.

- 3 Push to blue or green to select 'Programme Sorting' then push to yellow.






- 4 Push to blue or green to select the channel you want to exchange then push to yellow.

PROG	SYS	CHAN	LABEL
<input checked="" type="checkbox"/> 0	|	C28	BBC-W
<input type="checkbox"/> 1	|	C29	VHS-2
<input type="checkbox"/> 2	|	C35	CNN-
<input type="checkbox"/> 3	|	C38	----
<input type="checkbox"/> 4	|	C40	MV-CH
<input type="checkbox"/> 5	|	C42	VHS-1
<input type="checkbox"/> 6	|	C55	----
<input type="checkbox"/> 7	|	C56	8MM
<input type="checkbox"/> 8	|	C57	----
<input type="checkbox"/> 9	|	C58	----

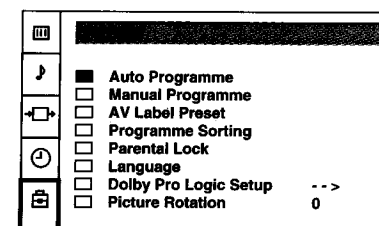
- 5 Push to blue or green to select the programme position of the channel you want exchanged then push to yellow.
- 6 Repeat steps 4 to 5 if you wish to exchange other programme positions.
- 7 Press the MENU button  to restore the normal TV picture.

Using Parental Lock

This function enables you to prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.


- 1 Press the MENU button .
- 2 Push joystick  to blue or green to select the symbol  on the menu screen then push to yellow.

- 3 Push to blue or green to select 'Parental Lock' then push to yellow.



- 4 Push to blue or green to select the channel you want to block then push to yellow.
A symbol appears before the programme number to indicate that this channel is now blocked.

PROG	SYS	CHAN	LABEL
<input checked="" type="checkbox"/> 0	|	C28	BBC-W
<input type="checkbox"/> 1	|	C29	VHS-2
<input type="checkbox"/> 2	|	C35	CNN-
<input type="checkbox"/> 3	|	C38	----
<input type="checkbox"/> 4	|	C40	MV-CH
<input type="checkbox"/> 5	|	C42	VHS-1
<input type="checkbox"/> 6	|	C55	----
<input type="checkbox"/> 7	|	C56	8MM
<input type="checkbox"/> 8	|	C57	----
<input type="checkbox"/> 9	|	C58	----

- 5 Repeat step 4 if you wish to block other channels.
- 6 Press the MENU button  to restore the normal TV picture.

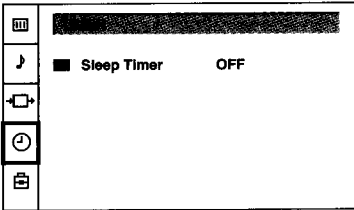
Note: To unblock, push to yellow after selecting the channel to unblock in the 'Parental Lock' menu.

Using the Sleep Timer

This function enables you to select a time period after which the TV automatically switches into standby mode.

1 Press the MENU button 15.

2 Push joystick 17 to blue or green to select the symbol 2 on the menu screen then push to yellow.



3 Push to yellow.

4 Push to red or yellow to set time delay and press the joystick 17.

OFF 0:30 1:00 1:30 3:30 4:00

One minute before the TV switches into standby mode, a message is displayed on the screen.

5 Press the MENU button 15 to restore the normal TV picture.

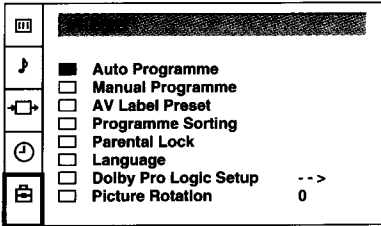
Skipping Programme Positions

This function enables you to skip unused programme positions when selecting them with the PROGR+/- buttons. However, you can still watch the channel of the skipped programme position by using the number buttons.

1 Press the MENU button 15.

2 Push joystick 17 to blue or green to select the symbol 3 on the menu screen then push to yellow.

3 Push to blue or green to select 'Manual Programme' then push to yellow.



4 Push to blue or green to select the programme position you want to skip then push to yellow.

5 Push to blue or green until '---' appears in the 'SYS' position.

PROG	SYS	CHAN	LABEL	AFT
<input type="checkbox"/> 0	|	C29	----	ON
<input type="checkbox"/> 1	|	C31	----	ON
<input type="checkbox"/> 2	|	C32	----	ON
<input type="checkbox"/> 3	|	C36	----	ON
<input checked="" type="checkbox"/> 4	|	C37	----	ON
<input type="checkbox"/> 5	|	C40	----	ON
<input type="checkbox"/> 6	|	C41	----	ON
<input type="checkbox"/> 7	|	C44	----	ON
<input type="checkbox"/> 8	|	C49	----	ON
<input type="checkbox"/> 9	|	C52	----	ON

6 Press the joystick 17.


7 Repeat steps 4 to 6 to skip other programme positions.

8 Press the MENU button 15 to restore the normal TV picture.

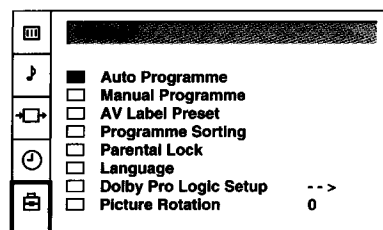
Captioning a Station Name

Names for channels are usually automatically taken from teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers).

1 Press the MENU button **15**.

2 Push joystick **17** to blue or green to select the symbol  on the menu screen then push to yellow.

3 Push to blue or green to select 'Manual Programme' then push to yellow.



4 Push to blue or green to select the channel you wish to caption then push to yellow repeatedly until the first element of the 'LABEL' position is highlighted.

5 Push to blue or green to select a letter or number and push to yellow (select '-' for a blank). Select the other four characters in the same way.

PROG	SYS	CHAN	LABEL	AFT
<input type="checkbox"/> 0	|	C29	----	ON
<input type="checkbox"/> 1	|	C31	----	ON
<input type="checkbox"/> 2	|	C32	----	ON
<input type="checkbox"/> 3	|	C36	----	ON
<input checked="" type="checkbox"/> 4	|	C37	A----	ON
<input type="checkbox"/> 5	|	C40	----	ON
<input type="checkbox"/> 6	|	C41	----	ON
<input type="checkbox"/> 7	|	C44	----	ON
<input type="checkbox"/> 8	|	C49	----	ON
<input type="checkbox"/> 9	|	C52	----	ON

6 After selecting all the characters, press the joystick **17**.


7 Repeat steps 4 to 6 to caption names for other channels.

8 Press the MENU button **15** to restore the normal TV screen.

Presetting Dolby Pro Logic


With Dolby Pro Logic Surround mode selected, you can experience three dimensional sound when watching Dolby Surround encoded programmes.

To experience programmes encoded in Dolby Surround sound, preset the surround mode to 'Pro Logic' as shown below.

1 Press  **14** on the remote commander.

2 Push joystick **17** to blue or green to select 'Pro Logic'.

- ☐ Off
- ☒ Pro Logic
- ☐ Pseudo Stereo
- ☐ Spatial
- ☐ Club
- ☐ Theatre
- ☐ Hall
- ☐ Church
- ☐ Stadium

3 Press  **14** to restore the normal TV screen.



Or alternatively you can select 'Pro Logic' in the surround mode of the 'SOUND CONTROL' menu (see page 20)

Teletext






Most TV channels broadcast information via teletext. The index page of the broadcaster (usually page 100) gives you information on how to use the service.

Make sure you use a TV channel with a strong signal, otherwise teletext errors may occur.

Switching Teletext on and off

- 1 Select the channel which carries the teletext service you wish to view.
- 2 Press  5 to display teletext.
If no teletext signal is broadcast, the indication P100 is displayed on a black screen.
- 3 Input three digits for the page number using the number buttons 23.
The page counter searches for the page and after some seconds the page is displayed.
- 4 Press  6 to return to the normal TV picture.


Using Other Teletext Functions

To	Press
Access the next or preceding teletext page	 26 for the next page or  26 for the preceding page
Mix the mode	 5 when in teletext mode. Now the teletext page is superimposed on the TV programme. Press again to return to the normal teletext display.
Freeze a teletext subpage	 20. Press once again to cancel.
Reveal hidden information (e.g.: answers to a quiz)	 19. Press once again to cancel.

Favourite page system


You can store up to four of your favourite teletext pages per Teletext service. In this way you have quick access to the pages you frequently use.


Storing pages

- 1 Use the number buttons 23 to select the page you would like to store.
- 2 Press  21 twice.
The colour prompts at the bottom of the screen flash.
- 3 Push the joystick 17 to the desired colour to store the selected page.
The page is now stored on this colour.

Repeat steps 1 to 3 for the other 3 pages.

Displaying the Favourite Pages

- 1 Press  21.
- 2 Push the joystick 17 to the colour on which the desired page is stored.

Make sure you press  21, otherwise the normal Fastext facility operates.

Using Fastext

(only available, if the TV station broadcasts Fastext signals)

With Fastext you can access pages with one key stroke. When Fastext is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue marks 17 on the Remote Commander.

Push the joystick 17 to the colour mark which corresponds to the colour-coded menu. The page is displayed after some seconds.

Connecting Optional Equipment

There is a wide range of optional equipment you can connect to your TV. Refer to the illustrations on the front flap page of this manual.

Symbol	Acceptable input signals	Available output signals
1 L	Normal audio/video and RGB	Audio/video from TV tuner
2/ 2 M	Normal audio/video and S video	Audio/video from selected source
3, 3 B 3 C	Normal audio/video and S video	No output
K	No inputs	Audio from selected source.

Connecting Headphones

Plug in the headphones to the socket **A** on the front of the TV.

About S video input

Video signals may be separated into Y (luminance) and C (chrominance) signals. Separating the two signals prevents interference and thus improves the picture quality.

Notes on connections:

- If the picture or sound is distorted, move the VCR away from the TV.
- When connecting a monaural VCR, connect only the white jack to both the TV and VCR.
- Select 'TV' for output in the 'VIDEO CONNECTION' menu if you connect a decoder to 2/ 2 **M** (see page 34).

Selecting Input and Output Signals

This section explains how to select the output signal from 2/ 2 **M** and how to select and view the input. You can use direct access buttons 20 **E** to select the input or the menu system to select input and output.

Selecting Input Signals With Direct Access Buttons

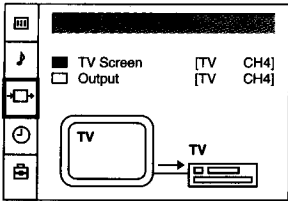
Press 20 **E** repeatedly.
Press 6 to restore the normal TV picture.

Symbol on the screen	Input Signal
1	Audio/video through Euro AV connector L
L	RGB through Euro AV connector L
2	Audio/video through Euro AV connector M
2	S video through Euro AV connector M
3	Audio/video through the phono jacks C
3	S video through the 4 pin DIN B

Selecting With the Video Connection Menu

1 Press the MENU button .

2 Push joystick to blue or green to select for "Video Connection" then push to yellow.



3 Push to blue or green to select 'TV Screen' (input source for the TV Screen) or 'Output' (output source for 2/ 2 **M**) then push to yellow .


4 Push to red or yellow repeatedly to select the desired input or output source then press the joystick .

5 Press the MENU button to restore the normal TV picture.

Note: If you select 'AUTO' for output, the output source automatically becomes the same as the desired input source.







Using AV Label Preset

This function enables you to label the input sources using up to five characters (letters or numbers).

- 1 Press the MENU button **15**.
 - 2 Push joystick **17** to blue or green to select the symbol  on the screen then push to yellow.
 - 3 Push to blue or green to select 'AV Label Preset' then push to yellow.
- | INPUT | LABEL |
|---|-------|
| <input checked="" type="checkbox"/> AV1 | ----- |
| <input type="checkbox"/> RGB | ----- |
| <input type="checkbox"/> AV2 | ----- |
| <input type="checkbox"/> YC2 | ----- |
| <input type="checkbox"/> AV3 | ----- |
| <input type="checkbox"/> YC3 | ----- |
- 4 Push to blue or green to select the desired input source then push to yellow.
 - 5 Push to blue or green to select a letter or number then push to yellow (select '-' for a blank).
Select the other four characters in the same way.
 - 6 After selecting all the characters, press the joystick **17**.
 - 7 Repeat steps 4 to 6 to label other input sources.
 - 8 Press the MENU button **15** to restore the normal TV screen.

Troubleshooting

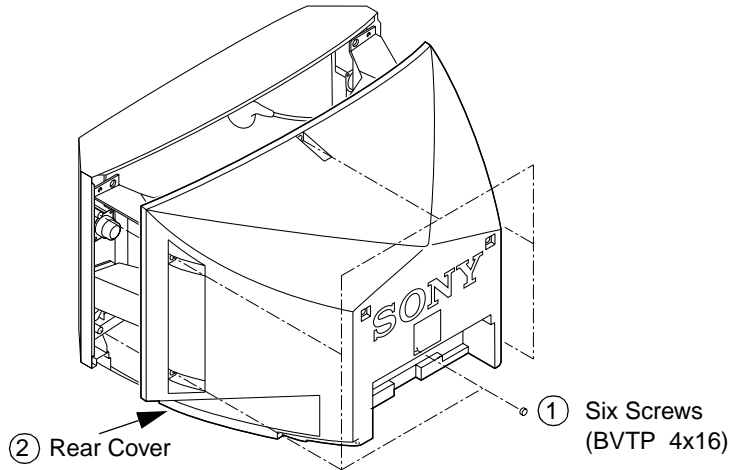
Here are some simple solutions to the problems which affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	<ul style="list-style-type: none"> • Plug the TV in. • Press 11 on the TV. (If  indicator H is on, press 6 or a programme number 23 on the Remote Commander.) • Check the aerial connection. • Check if the selected video source is on. • Turn the TV off for 3 or 4 seconds then turn it on again using 11.
Poor or no picture (screen is dark), but good sound	<ul style="list-style-type: none"> • Press MENU 15 to enter the 'PICTURE CONTROL' menu and adjust 'Contrast', 'Brightness' and 'Colour'.
Poor picture quality when watching an RGB video source.	<ul style="list-style-type: none"> • Press  20 E repeatedly to select .
Good picture but no sound	<ul style="list-style-type: none"> • Press  + 16 F. • If  is displayed on the screen, press  1. • Check the speaker lead connections.
No colour for colour programmes	<ul style="list-style-type: none"> • Press MENU 15 to enter the 'PICTURE CONTROL' menu, select 'Reset' then press the joystick 17.
Remote Commander does not function.	<ul style="list-style-type: none"> • Replace the batteries

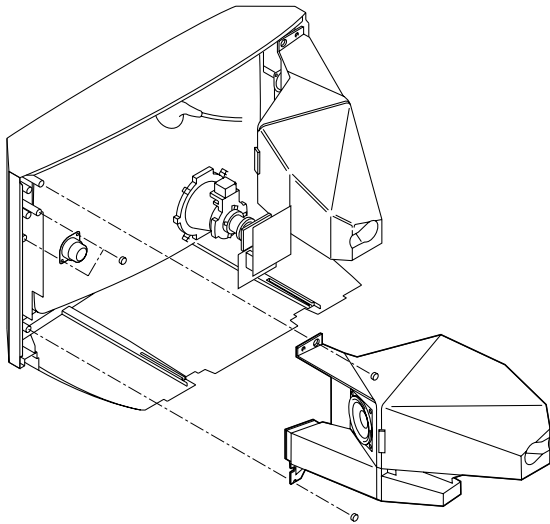
If you continue to have problems, have your TV serviced by qualified personnel.
Never open the casing yourself.

SECTION 2 DISASSEMBLY

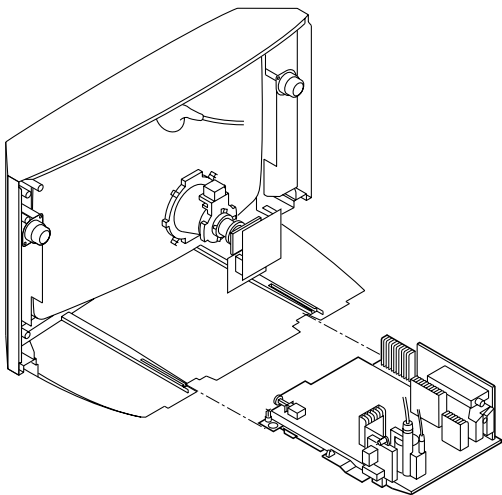
2-1. REAR COVER REMOVAL



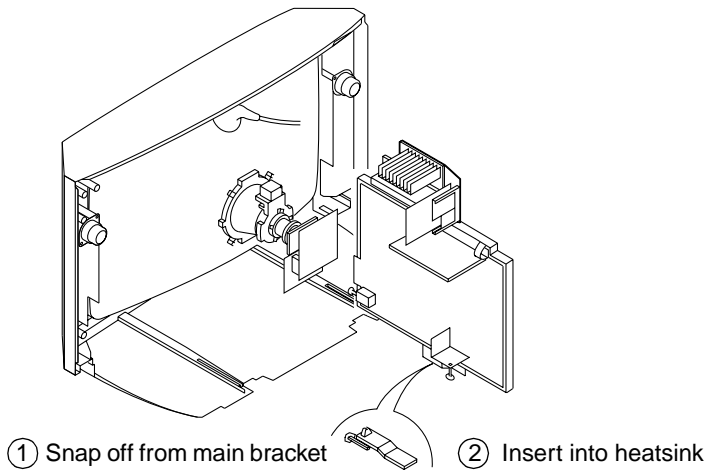
2-2. SPEAKER REMOVAL



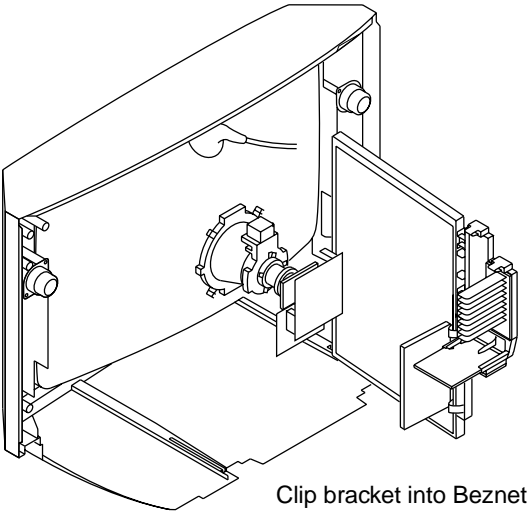
2-3. CHASSIS ASSY REMOVAL



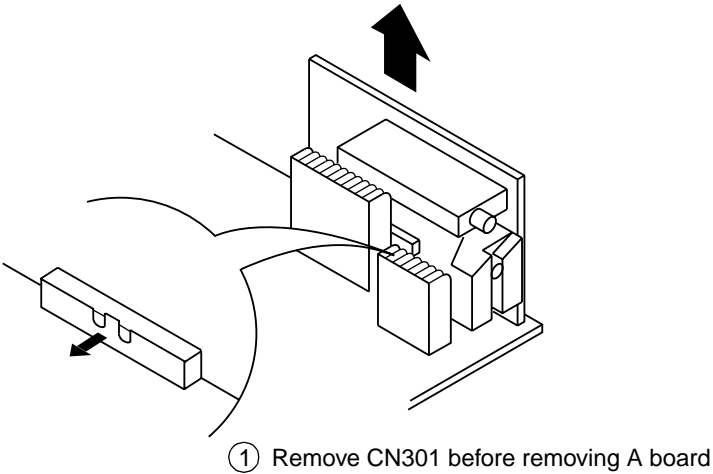
2-4-1. SERVICE POSITION (1)



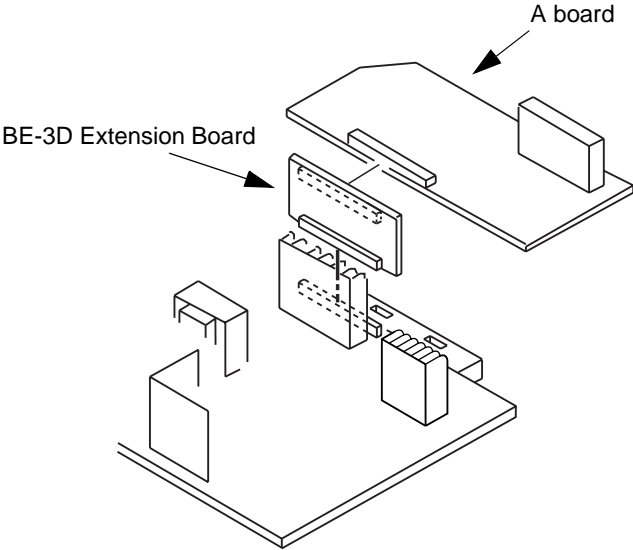
2-4-2. SERVICE POSITION (2)



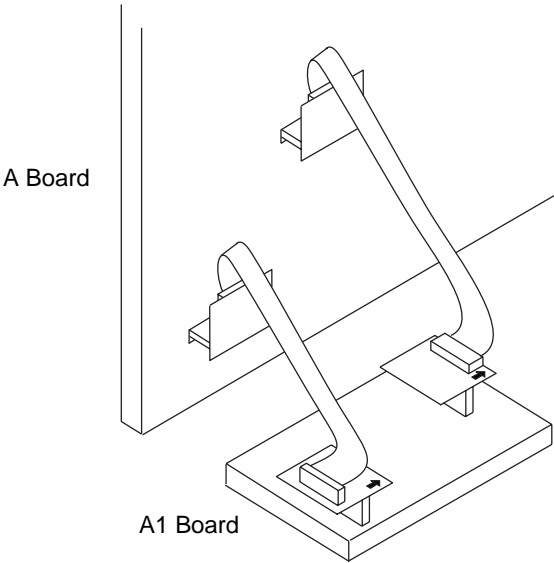
2-5. A BOARD REMOVAL



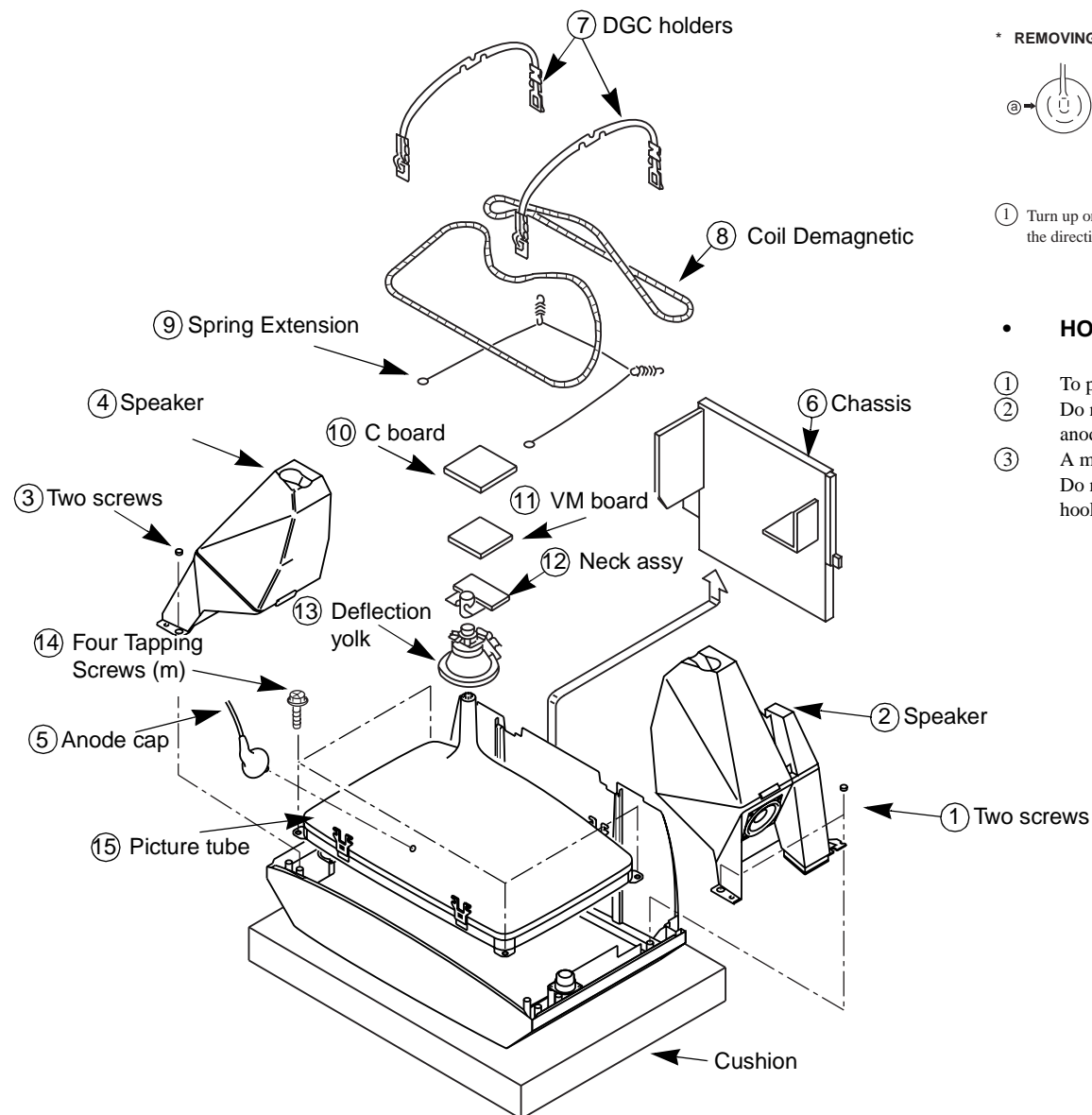
2-6. A EXTENSION BOARD



2-7. A1 EXTENSION BOARDS



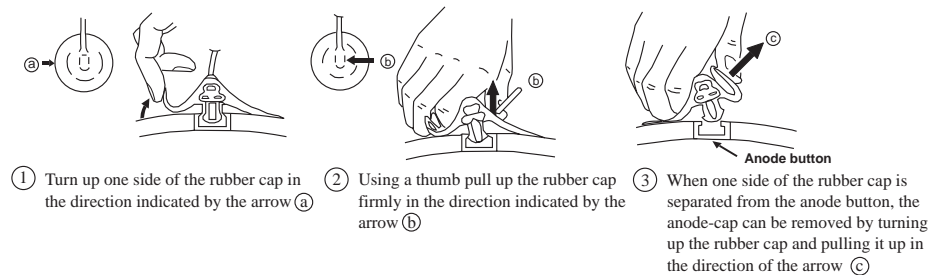
2-8. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

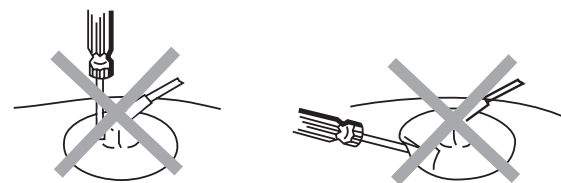
Note : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

* REMOVING PROCEDURES.



• HOW TO HANDLE THE ANODE-CAP

- ① To prevent damaging the surface of the anode-cap do not use sharp materials.
- ② Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
- ③ A metal fitting called a shatter hook terminal is fitted inside the rubber cap. Do not turn the rubber foot over excessively this may cause damage if the shatter hook sticks out.

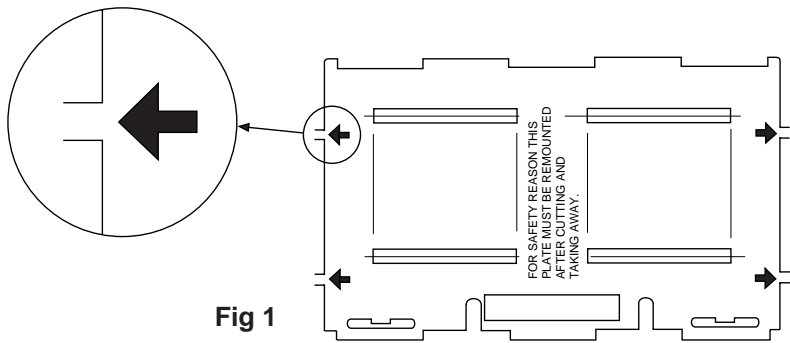


REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

(1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed circuit, the bottom plates fitted to the main chassis bracket require to be removed. This is performed by cutting the gates with a sharp wire cutter at the locations shown and indicated by arrows.

Note : There are 5 plates fitted to the main bracket and secured by 4 or 6 gates. Only remove the necessary plate to gain access to the circuit board.



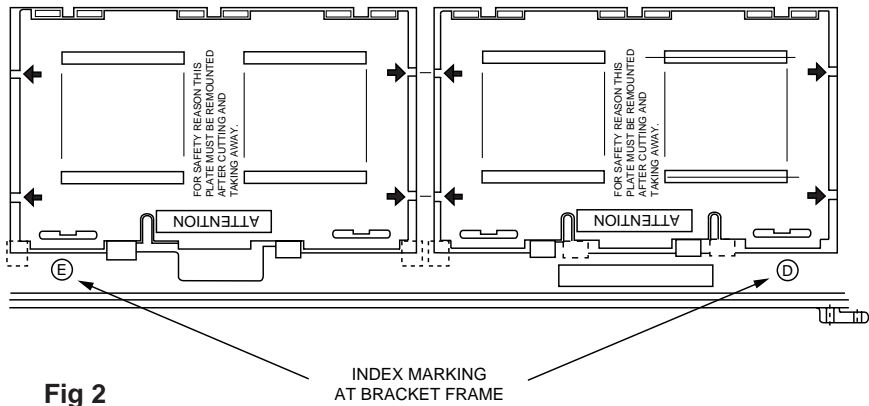
For safety reasons, on no account should the plates be removed and not refitted after servicing.

(2) REFITTING THE PLATES

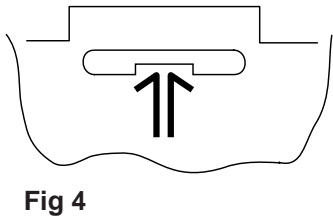
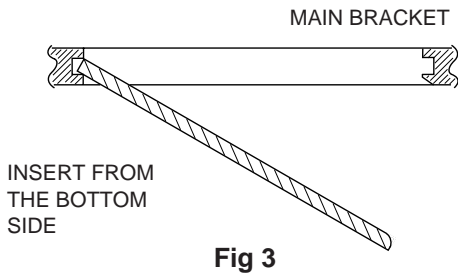
Because the plates differ in size it is important that the correct plates are refitted in their original location.

The plates are identified by markings A-B-C-D-E on their top side.

1. Identify the plate by locating its marking.
2. Turn the plate over noting where the marking is located.
3. Locate the corresponding marking indicated on the main chassis bracket. See Fig 2.
4. Refit the plate as indicated in Fig 3 with the markings located next to each other.



In the event of the plates requiring to be removed at a later stage, this can be achieved by inserting a screwdriver in the snap-recess indicated as in Fig 4 and lifting out.



SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

Contrast 80% [or remote control normal]
 Brightness 50%

Carry out the following adjustments in this order :

- 3-1. Beam Landing
- 3-2. Convergence
- 3-3. White balance
- 3-4. Focus

- Note :** Test equipment required
1. Color bar/pattern generator.
 2. Degausser.
 3. Oscilloscope.
 4. Digital multimeter.
 5. DC Power supply.

Preparation:

1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input an all white signal from the pattern generator. Set the Contrast and Brightness to normal.
2. Set the pattern generator raster signal to Red.
3. Move the deflection yolk forward and adjust with the purity control so that the Red is at the centre and the Blue and Green take up equally sized areas on each side of the screen. [See Fig.3-1 - 3-3].
4. Move the deflection yolk forward and adjust so that the entire screen becomes Red. [See Fig.3-1]
5. Switch the raster signal to Blue, then to Green and verify the condition.
6. When the position of the deflection yolk has been determined, fasten the deflection yolk with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to correct it. [See Fig.3-4]

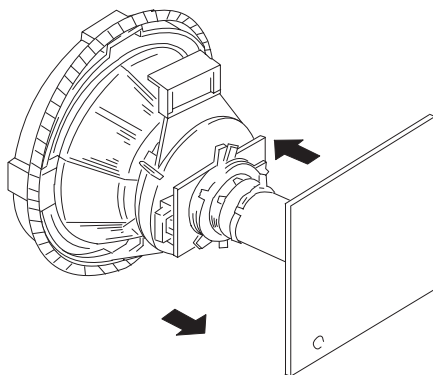


Fig. 3-1

Fig. 3-2

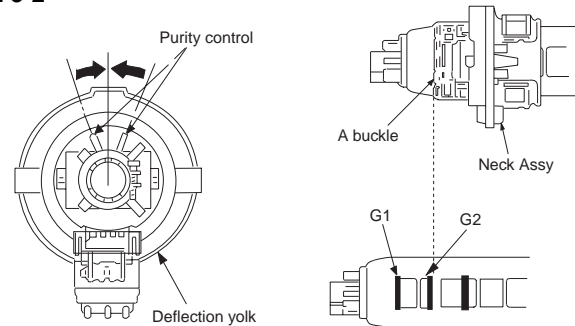


Fig. 3-3

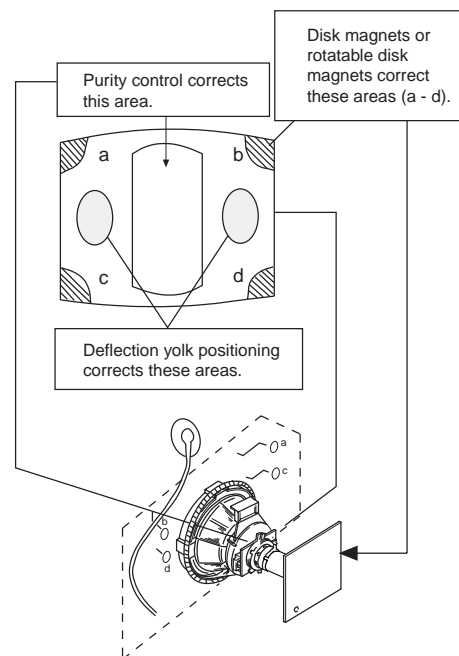
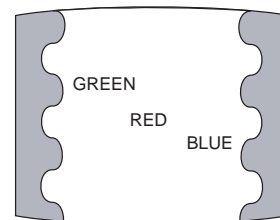


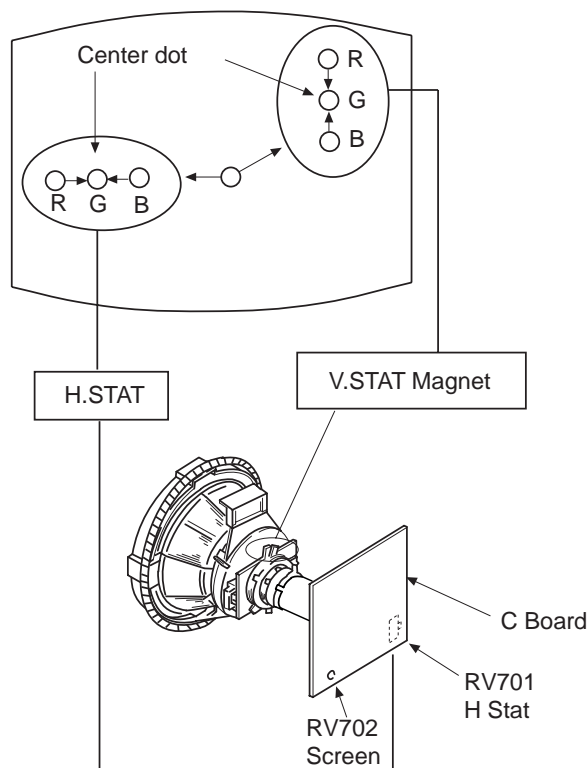
Fig. 3-4

3-2. CONVERGENCE

Preparation:

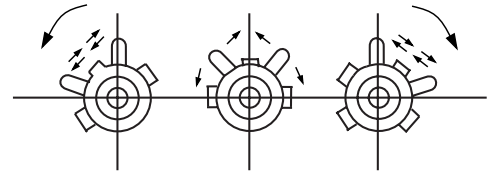
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the Brightness setting.
- Input a dot pattern from the pattern generator.

(1) Horizontal and vertical static convergence

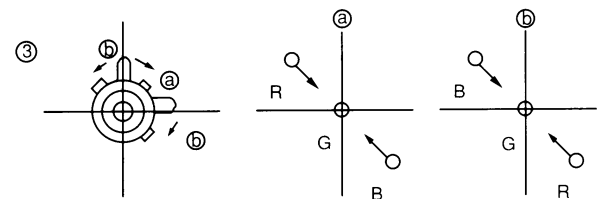
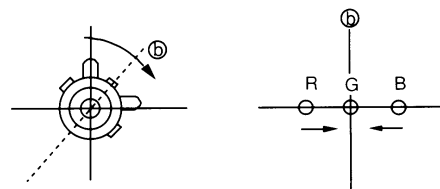
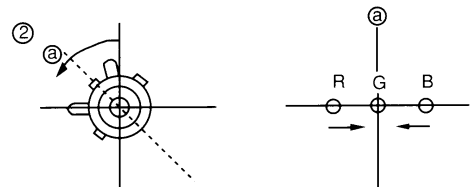
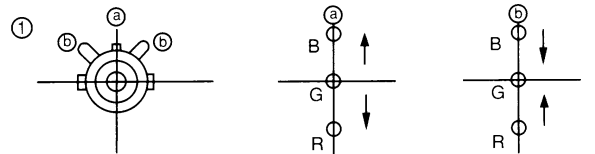


1. [Moving horizontally], adjust the H.STAT control so that the Red, Green and Blue points are on top of each other at the centre of the screen.
2. [Moving vertically], adjust the V.STAT magnet so that the Red, Green and Blue points are on top of each other at the centre of the screen.
3. If the H.STAT variable resistor is unable to bring the Red, Green and Blue points together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner indicated below. [In this case, the H.STAT variable resistor and the V.STAT magnet influence each other].

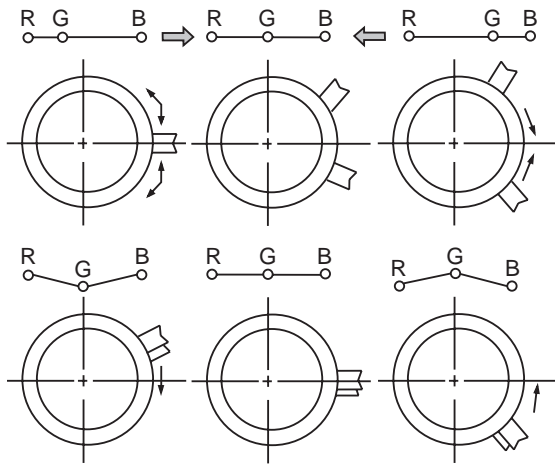
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



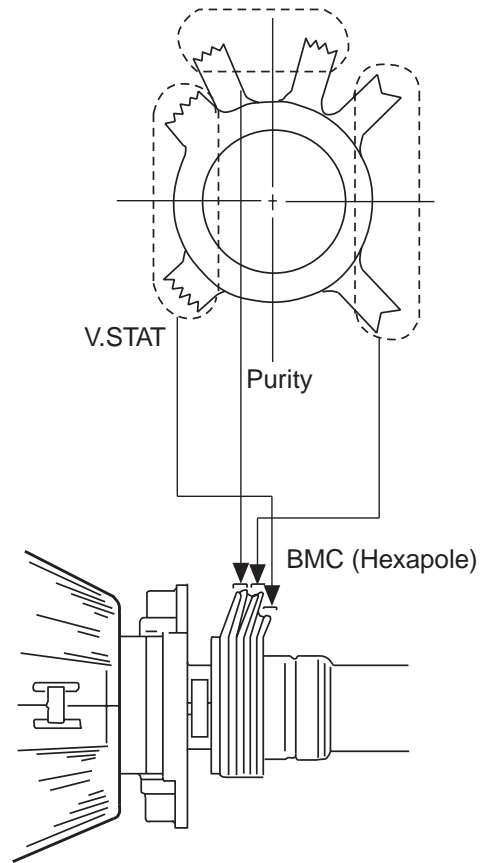
4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the Red, Green and Blue points move as indicated below.



- Operation of the BMC (Hexapole) magnet.



- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment whilst tracking.
Use the H.STAT VR to adjust the Red, Green and Blue dots so that they coincide at the centre of the screen (by moving the dots in the horizontal direction).



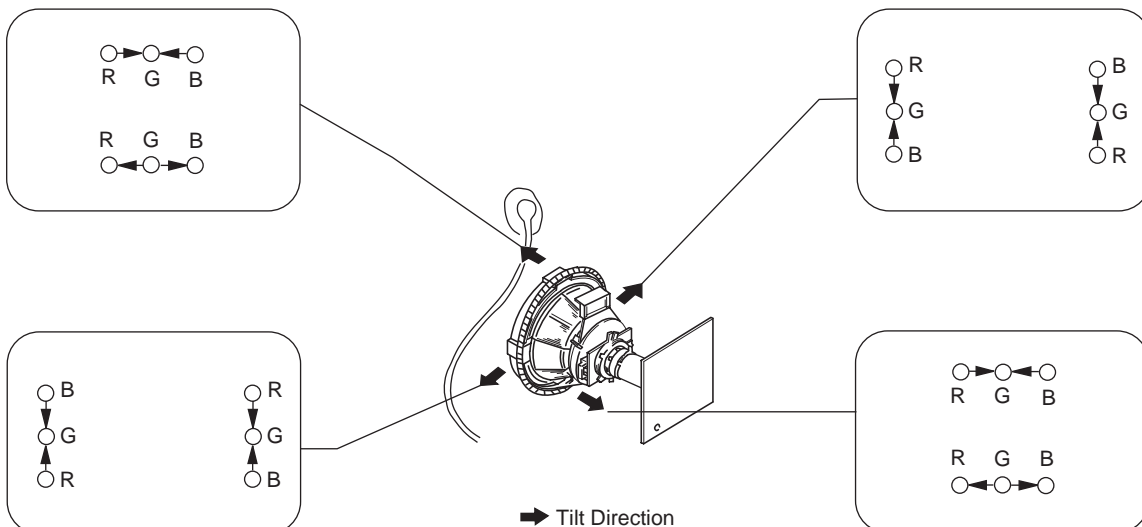
(2) Dynamic convergence adjustment.

Preparation:

- Before starting this adjustment, adjust the horizontal and vertical static convergence.
1. Remove the deflection yolk spacer.

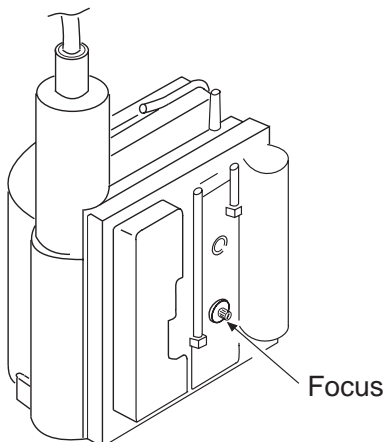
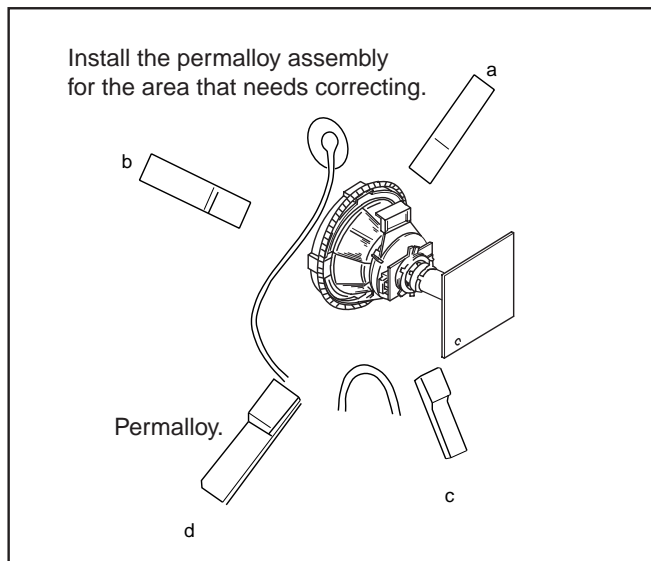
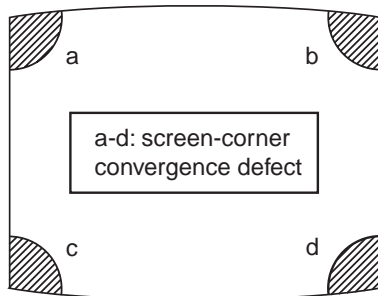
2. Tilt the deflection yolk as indicated in the figure below and optimize the convergence.
3. Re-install the deflection yolk spacer.

Note : This adjustment will affect the geometry of the display, therefore adjust to obtain the optimum setting.



(3) Screen corner convergence.

- If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.



3-3. WHITE BALANCE

G2 Setting

- Switch the TV set into AV mode [apply a cross-hatch signal].
- Enter into the 'Service mode' and select 'Picture Control'.
- Enter 'Picture Control' and select 'Personal' press OK.
- Return to 'Picture Control' menu and select 'Reset'.
- Measure the voltages on the 3 cathodes of the CRT, Kr, Kg and Kb using an oscilloscope with a 100:1 probe.
- Connect the oscilloscope to the CRT cathode which recorded the highest voltage and adjust [RV702 SCREEN] to obtain a reading of 170V black to white.

White balance adjustment

- Input an all white signal from the pattern generator.
- Enter into the Service Mode.
- Enter into the 'Picture Adjustment' service menu.
- Select 'Sub contrast' and adjust to 7.
- Select the 'Green drive' and adjust so that the white balance becomes optimum.
- Select the 'Blue drive' and adjust so that the white balance becomes optimum.
- Press the 'TV' button on the remote commander to return to TV operation.

PICTURE ADJUSTMENT

AFC mode	1
REF position	2
SCP BGR	1
SCP BGF	1
Trap fo	0
Sub contrast	Adj
Sub colour	Adj
Sub brightness	Adj
Green drive	Adj
Blue drive	Adj
Green cutoff	Adj
Blue cutoff	Adj
Gamma	0
Pre / overshoot	0
Y delay	3

3-4. FOCUS

- Receive a television broadcast signal.
- Normalise the picture setting.
- Adjust the focus control on the flyback transformer for the best focus at the centre of the screen.

Bring only the centre area of the screen into focus, the magenta ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.

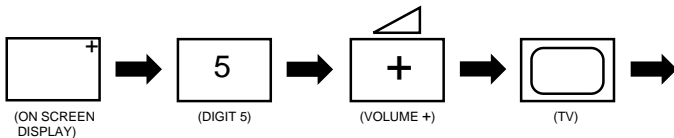
SECTION 4 CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustments to this model can be performed using the supplied Remote Commander RM-862.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch and enter into the stand-by mode.
2. Press the following sequence of buttons on the Remote Commander.



- 'TT--' will appear in the upper right corner of the screen. Other status information will also be displayed.
3. Press 'MENU' on the remote commander to obtain the following menu on the screen.

TEST MENU

> Picture Adjustment
 Geometry
 Wide
 IC status
 MSP
 Current TV status

4. Move to the corresponding adjustment using the button on the remote commander.
5. Press the + button to enter the selected adjustment.
6. Turn off the power to quit the service mode when adjustments have been completed.

PICTURE ADJUSTMENT

AFC mode	1
REF position	3
SCP BGR	1
SCP BGF	1
Trap fo	7
Sub contrast	Adj
Sub colour	Adj
Sub brightness	Adj
Green drive	Adj
Blue drive	Adj
Green cutoff	Adj
Blue cutoff	Adj
Gamma	0
Pre / overshoot	0
Y delay	5
D Pic	ON/OFF
D Colour	ON/OFF
DC Transfer	ON/OFF

GEOMETRY ADJUSTMENT - 4:3

V size	Adj
V position	Adj
S Correction	Adj
V Linearity	Adj
H size	Adj
H position	Adj
Pin Amp	Adj
Pin Phase	Adj
AFC Bow	Adj
AFC Angle	Adj
EHT V	1
EHT H	0
Lo Corn Pin	Adj
Up Corn Pin	Adj

WIDE ADJUSTMENT

	Wide	Smart	Zoom	4:3
V Aspect	0	14	47	0
V Scroll	31	31	30	31
Upper V Lin	0	3	0	0
Lower V Lin	0	3	0	0
Left Blanking	7	7	7	6
Right Blanking	7	7	7	8

MSP

AGC ON/OFF	ON
Constant gain CDB	0
FM prescale FMP	36
Zwei mono-st WHI	36
Zwei st-mono WLO	18
Zwei mono-bi WMH	36
Zwei bi-mono WLO	18
Time Zwei WML	41
Fawct limit	10
Fawct soll init FAW	12
Fawer tol	2
Nicam Err Max CCT	10
Nicam Err Min	0
Nicam Prescale I	127
Nicam Prescale L/BG/DK	97
Time Nicam	31
Audio clock ACO	HIZ
Scart prescale	25
Scart volume	64

IC STATUS (CXA2076 / CXA2040)

CXA2076	
H lock	1
IKR	1
VNG	0
X-RAY	0
Colour system	3
CV1 sync	1
CXA2040	
Sync sep	1
S1 mode pin	01
S2 mode pin	01
TUNER	
Tuner status	01101011

TV STATUS BE3D

Text system	C TEXT
Dolby	YES
Text language set	WEST/EAST
Menu language set	WEST/EAST
Destination	B/D/U
Scart 16:9	ON
RGB priority	OFF
Ageing	OFF/ON
Size	32
Colour trap sw	ALL
Velocity mod	ON
AFT STATUS	WINDOW/HIGH/LOW
Lumisponder Mode	1
Micro/Jungle	SDA5250/CXA2076

SUB BRIGHTNESS ADJUSTMENT

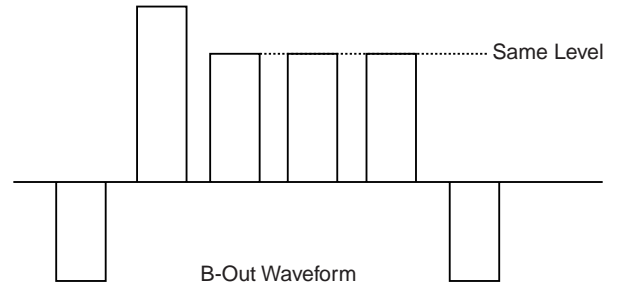
1. Input a Phillips pattern.
2. Set the picture control to minimum.
3. Enter into the 'Picture Adjustment' service menu.
4. Adjust the 'Sub-Brightness' data so that there is barely a difference between the 0 IRE and 10 IRE signal levels.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a black background.
2. Set the picture control to maximum.
3. Connect an oscilloscope to Pin 3 of CN301 [A Board].
4. Enter into the 'Picture Adjustment' service menu.
5. Adjust the 'Sub-contrast' data to obtain a black to white amplitude of 2.50V.

SUB COLOUR ADJUSTMENT

1. Receive a PAL colour bar video signal.
2. Connect an oscilloscope to Pin 3 of CN301 [A Board].
3. Enter into the 'Picture Adjustment' service menu.
4. Adjust the 'Sub-colour' data so that the Cyan, Magenta and Blue colour bars are of equal height as indicated below.



Note: The data indicated in the 'TV STATUS' table is dependant on destination, screen size and country.

SYSTEM B/G, D/K, I & L I.F ADJUSTMENT

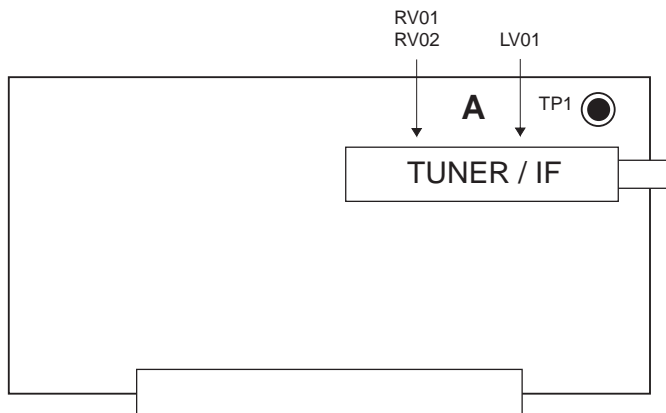
1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
2. Enter into the 'IF Adjustment' service mode [i.e 'TT59'] to fix the I.F frequency to 38.9MHz.
3. Enter into the service mode and select 'Current TV status'.
4. Adjust the I.F coil [LV01] until the 'AFT Status' indicates a 'Window' condition.

SYSTEM L BAND 1 I.F ADJUSTMENT

1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
2. Enter into the 'IF Adjustment' service mode [i.e 'TT59'] to fix the I.F frequency to 38.9MHz.
3. Enter into the service mode and select 'Current TV status'.
4. Adjust the RV02 control until the 'AFT Status' indicates a 'Window' condition.

TUNER AGC ADJUSTMENT

1. Receive a signal of 63dBuV / 75 ohm terminated, via the tuner socket.
2. Measure the voltage at test point 1 [A Board].
3. Adjust RV01 control to obtain a voltage of 3.0V +/- 0.3V.

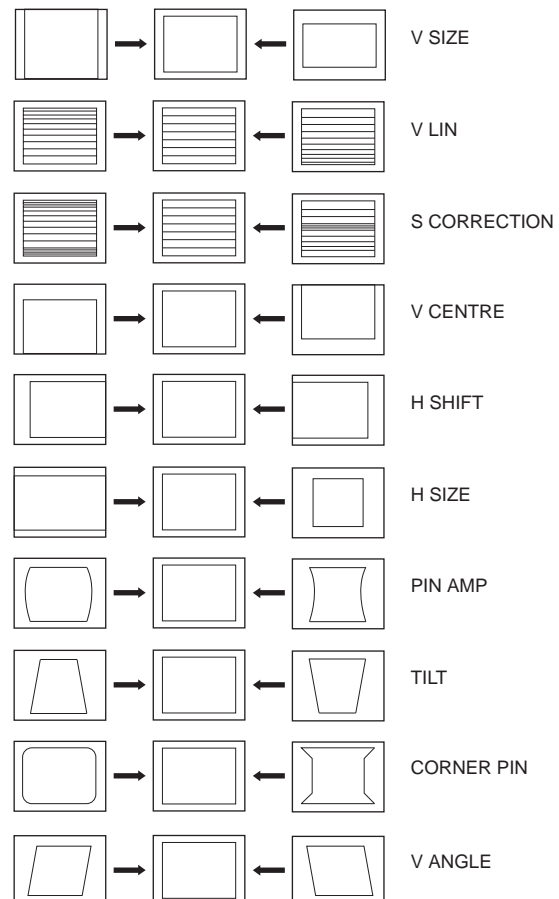


DEFLECTION SYSTEM ADJUSTMENT

1. Enter into the 'Geometry Adjustment' service menu.
2. Select and adjust each item in order to obtain the optimum image.

GEOMETRY ADJUSTMENT

V size	Adj
V position	Adj
S Correction	Adj
V Linearity	Adj
H size	Adj
H position	Adj
Pin Amp	Adj
Pin Phase	Adj
AFC Bow	Adj
AFC Angle	Adj
EHT V	1
EHT H	0
Lo Corn Pin	Adj
Up Corn Pin	Adj



4-2. TEST MODE 2:

Is available by pressing 'TEST' button twice, OSD 'TT' appears. The functions described below are available by pressing the two numbers. To release the Test mode 2, press 0 twice, or switch the TV into stand-by mode.

Note : 'TT' modes 40 - 49 require the TV set to be in programme 59 before the command is accepted. Some test modes are dependant upon the model.

00	Cancel Test mode
01	Picture maximum
02	Picture minimum
03	Volume 30%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing mode
08	Set shipping conditions
09	Reset language select menu on power up
10	No function
11	Clear & Disable OSD
12	Enable OSD
13	Scart 16:9 Enable / Disable
14	Display TV status
15	Picture reset
16	Set 32" chassis (Wide models only)
17	Set all AV labels to default
18	RGB priority Enable / Disable
19	Set all programme labels to default
20	No function
21	Sub picture adjustment (use red/yellow)
22	Sub colour adjustment (use red/yellow)
23	Sub brightness adjustment (use red/yellow)
24	Destination U
25	Destination D
26	Destination B
27	Destination K
28	Destination L
29	Destination E
30	No function
31	Destination A
32	Destination R
33	Sub Woofer Enable
34	Sub Woofer Disable
35	Set up trap switch
36	Rotation test
37	Set 25" (24" Wide models)
38	Set 29" (28" Wide models)
39	D/K Nicam enable
40	No function
41	Re-initialize the NVM

42	Default Programme info in NVM with manufacturing factory channel setup
43	Default Geometry settings
44	Default favourite pages to 100,101,102 and 103
45	Switch off all channel locks
46	Dealer commander mode (pending)
47	Default MSP settings
48	Restore NVM test byte Undo 'TT49'
49	Delete NVM test byte Sets virgin NVM
50	No function
51	Text interface odd (NON INTERLACED MODE = 3)
52	Text interface even (NON INTERLACED MODE = 2)
53	Auto picture ON
54	Auto picture OFF
55	Auto cut off ENABLE
56	Auto cut off DISABLE
57	AV3 ENABLE
58	AV3 DISABLE (if TV Text) otherwise AV3 ENABLE
59	Auto IF Display
60	No function
61	Dolby Pro-Logic ON
62	Noise Left
63	Noise Right
64	Noise Centre
65	Noise Surround

66	DSP Bypass
67	D/K Nicam Disable
68	Diagnostics OFF
69	Diagnostics ON
70	No function
71	Lumisponder Curve 1
72	Lumisponder Curve 2
73	Jungle Select (CXA2000 or CXA2076)
74	Text H Position adjust
75	Picture reset
76	MSP BG filter enabled (h/w required)
77	Sound reset
78	MSP BG filter disabled (h/w required)
79	Wide set-up (Wide screen models only)
80	No function
81	Velocity mod ON
82	Velocity mod OFF
83	Picture Rise step 40ms
84	Picture Rise step 80ms
85	Picture Rise step 160ms
86	Picture Rise OFF
87	Select Shop Mode
88	Compact Text Acquisition Disable
89	Compact Text Acquisition Enable
90	No function
91	Sound Centre mode NORMAL
92	Sound Centre mode WIDE
93	Sound Centre mode PHANTOM
94	Toggle Compact Text Acquisition Delay Bit 0
95	Toggle Compact Text Acquisition Delay Bit 1
96	Toggle Compact Text Acquisition Delay Bit 2
97	Toggle Compact Text Acquisition Delay Bit 3
98	Toggle Compact Text Acquisition Delay Bit 4
99	Set test menu

The shaded test modes indicated in bold can set the delay byte to any value 0-31 which creates a (value x 20) mS delay.
Note: Compact Text models only.

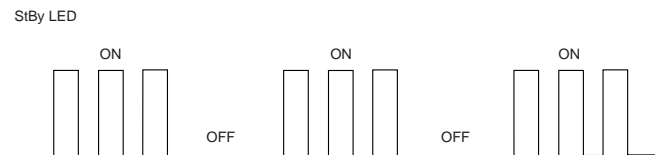
4-3. BE-3D SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3D chassis is triggered in one of two ways :- 1: Busy busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy [Failure to do so will report with continuous flashing LED] and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED [Series of flashes which must be counted] See Table 1., non fatal errors are reported using this method.

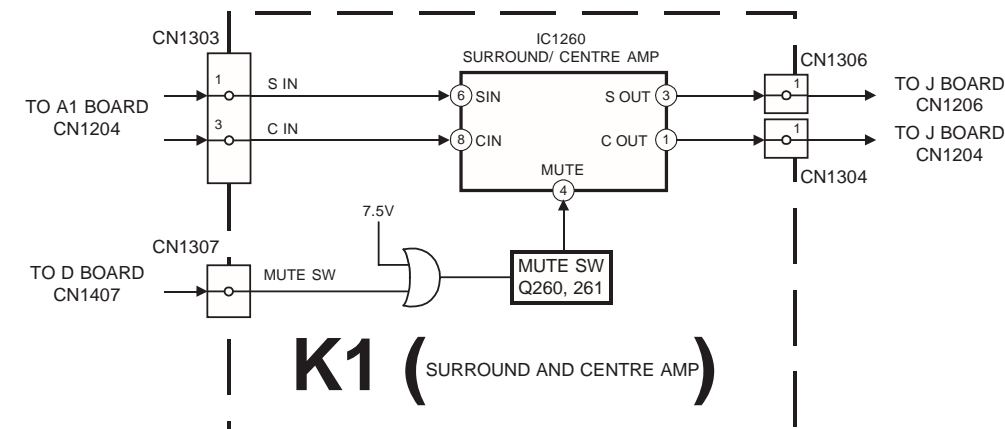
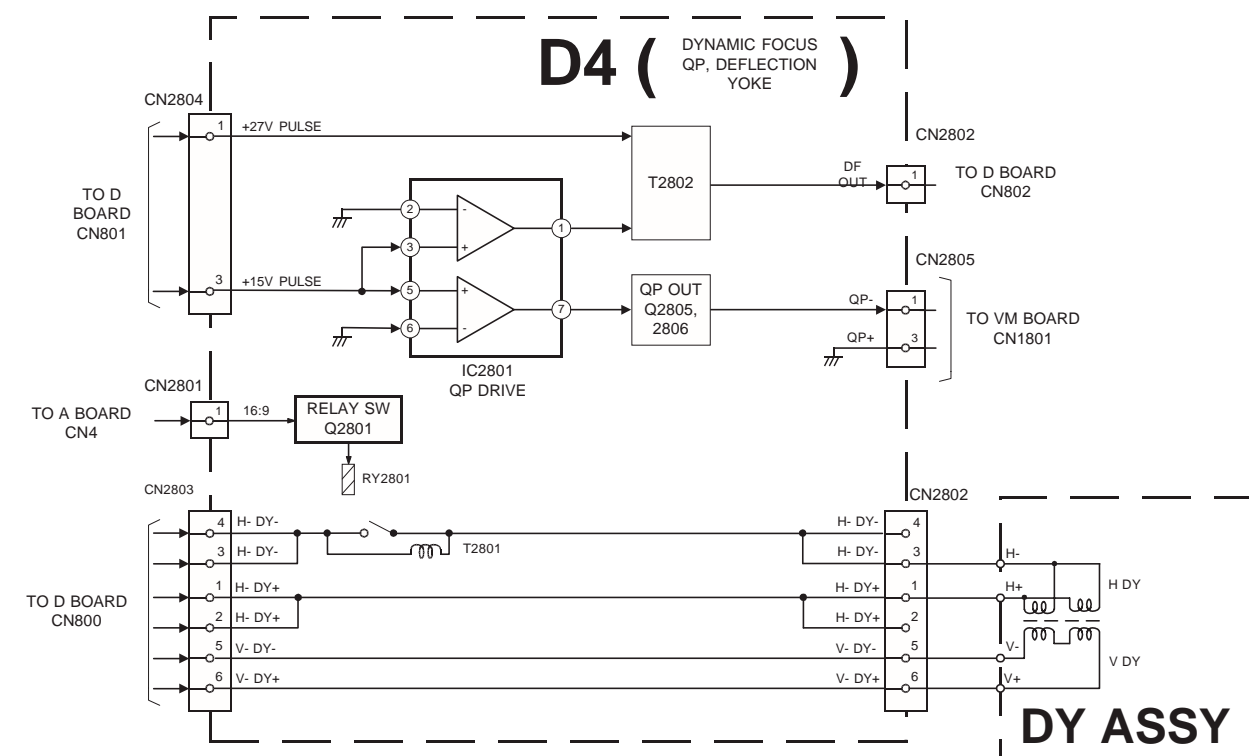
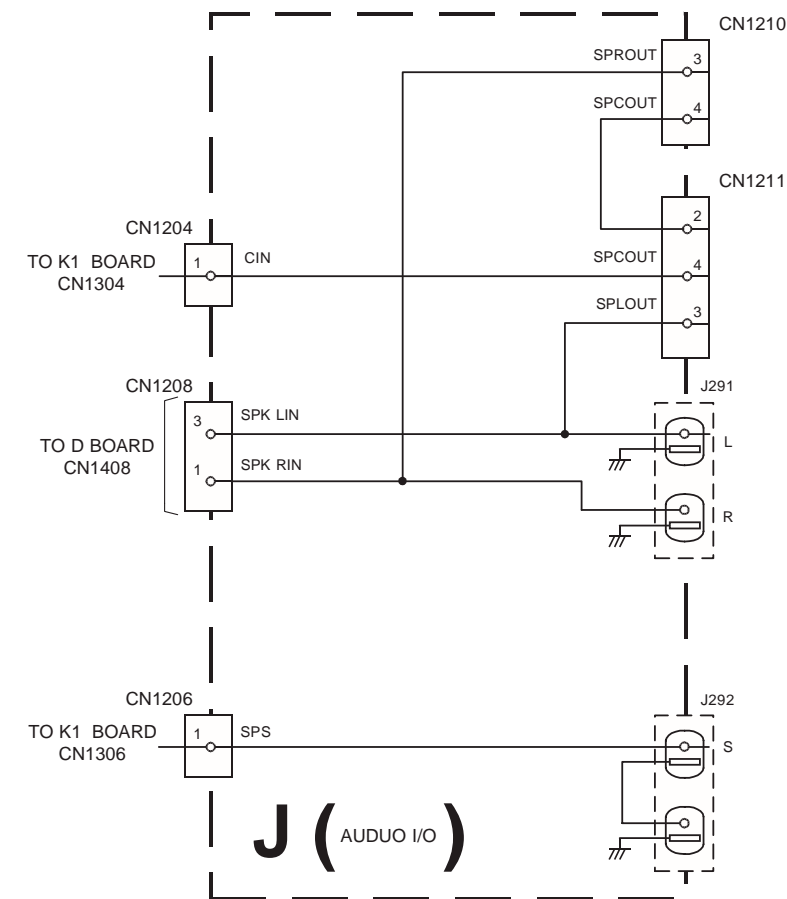
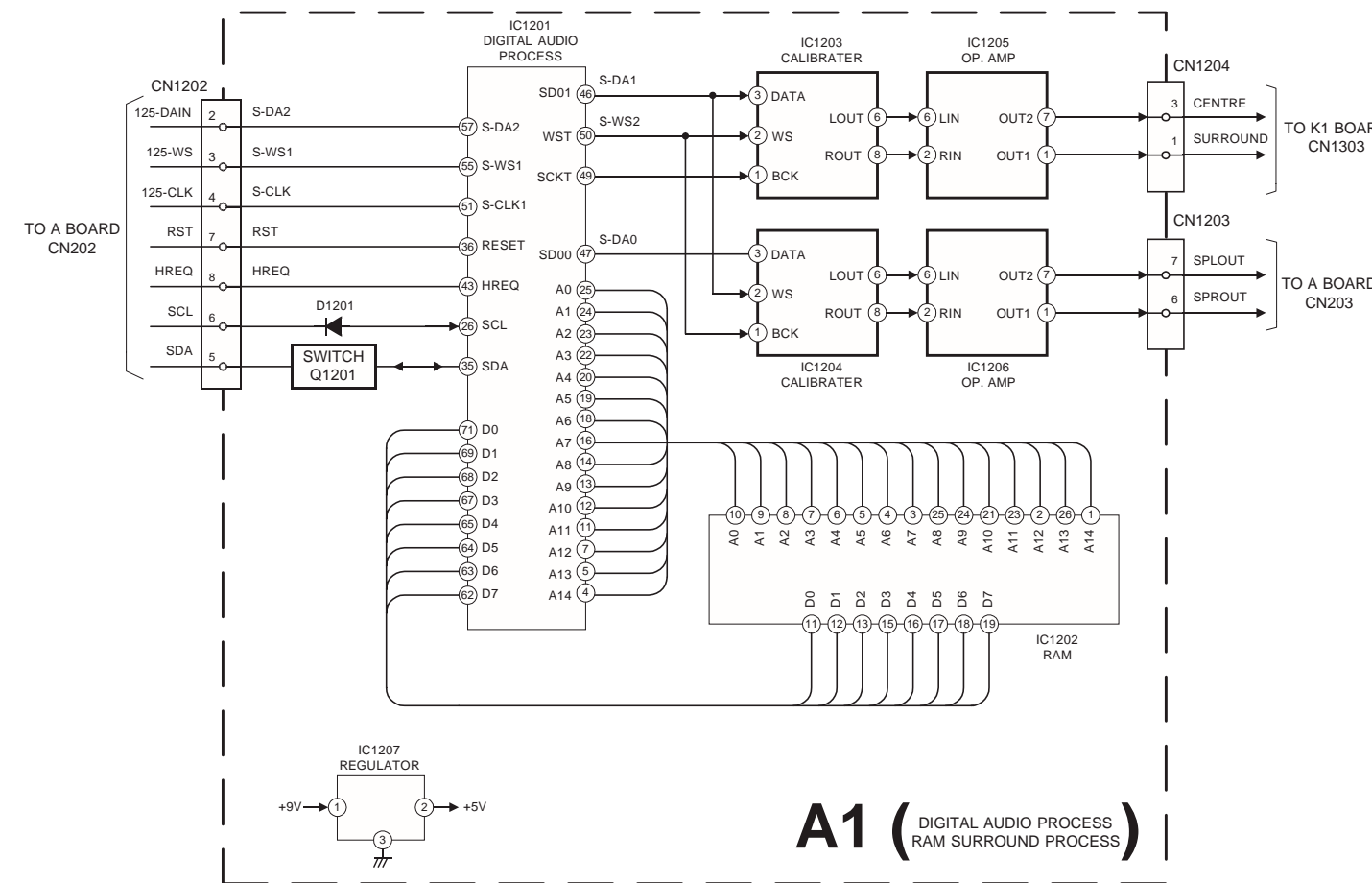
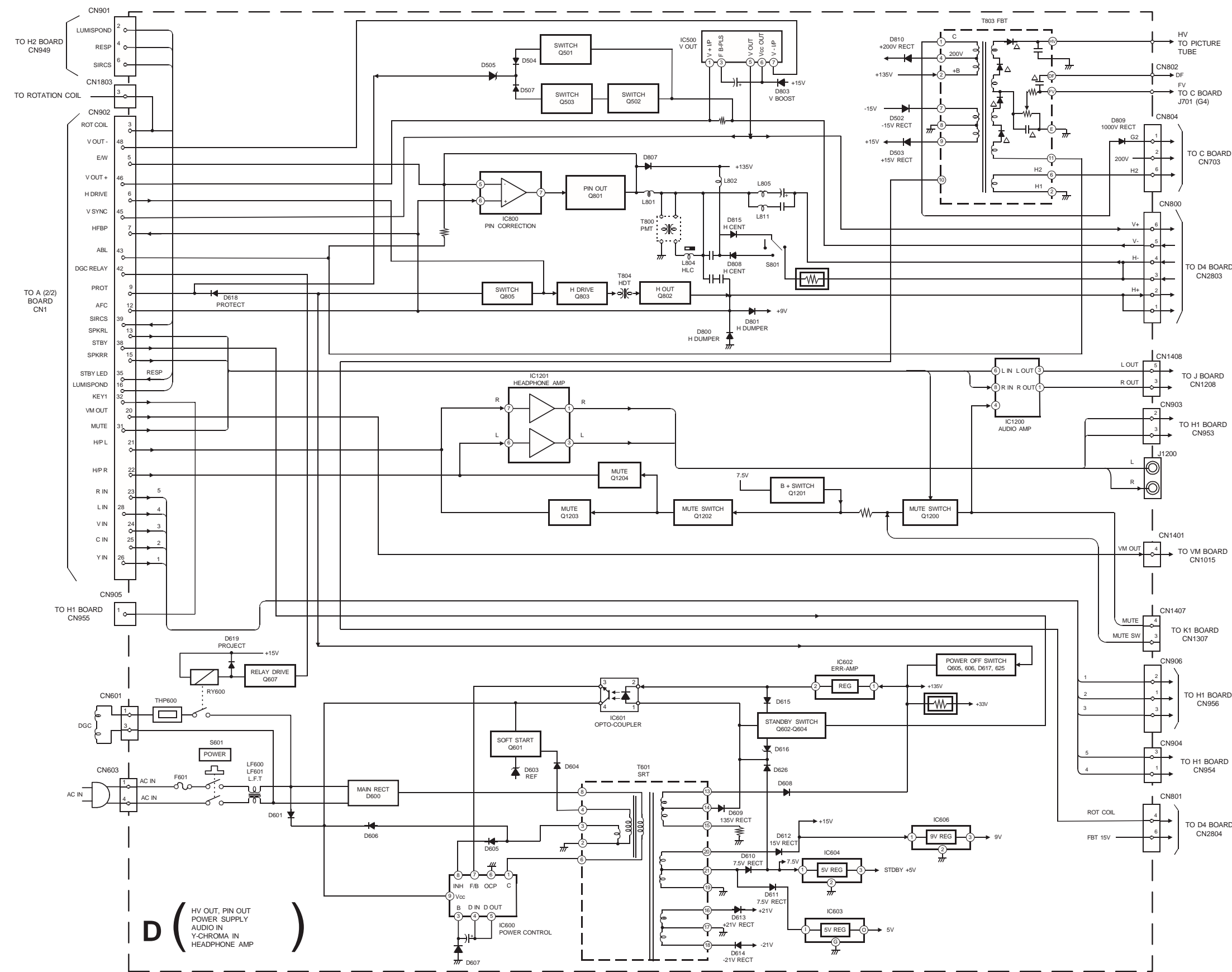
ERROR	LED ERROR COUNT
No error	00
Not allowed (may be confused with Sircs response flash!)	01
Protection circuit trip < ANY TIME >	02
IIC SCL LOW < POWER UP ONLY >	03
IIC SDA LOW < POWER UP ONLY >	04
IIC SDA & SCL LOW < POWER UP ONLY >	05
Jungle / Chroma controller no acknowledge < POWER UP ONLY >	06
Video Switch no acknowledge < POWER UP ONLY >	07
Tuner no acknowledge	08
MSP no acknowledge	09
NVM no acknowledge	10
M3L TXD Low < POWER UP ONLY >	11
M3L RXD Low < POWER UP ONLY >	12
M3L ENABLE Low < POWER UP ONLY >	13
M3L TXD & RXD Low < POWER UP ONLY >	14
Compact Text test fail < POWER UP ONLY >	15
AV switch cannot power on reset < Chassis Initialisation >	16
Cannot initialise jungle (after initial power on checked out OK) - < Chassis initialisation >	17
NVM acknowledge fail after initialisation (STBY +5V same as micro!)	18
Multiple devices with no acknowledge < POWER UP ONLY >	19
Compact text run-time failure after power up check (+9V test)	20
AV SWITCH response failure after power up check (+9V test)	21
JUNGLE / CHROMA controller response failure after power up check (-9V test)	22
Compact text does not respond (-5V test)	23
MSP run-time failure < MAY NOT BE FATAL-DISPLAY ON ERROR READER >	24

M3L bus Clock low time out after data send (run-time failure)	25
M3L bus Clock low time out after data send (at power up check)	26
M3L bus Clock low time out after data send (at initialisation)	27
DSP run-time failure < MAY NOT BE FATAL-DISPLAY ON ERROR READER >	28

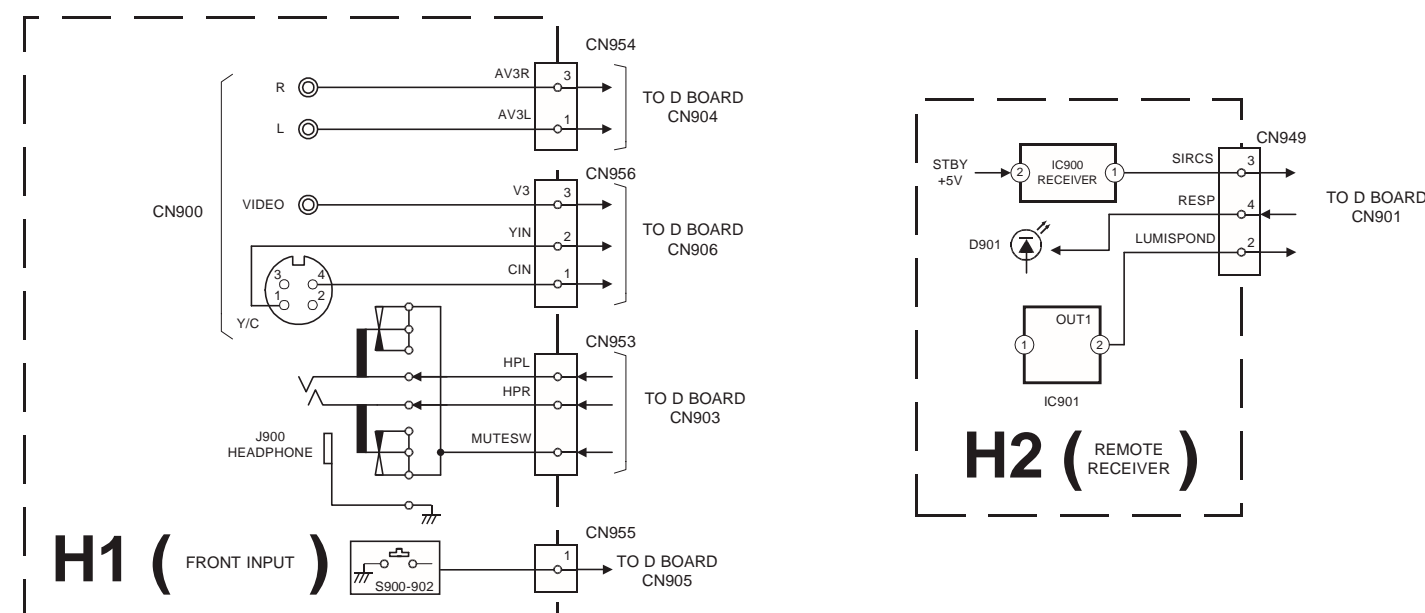
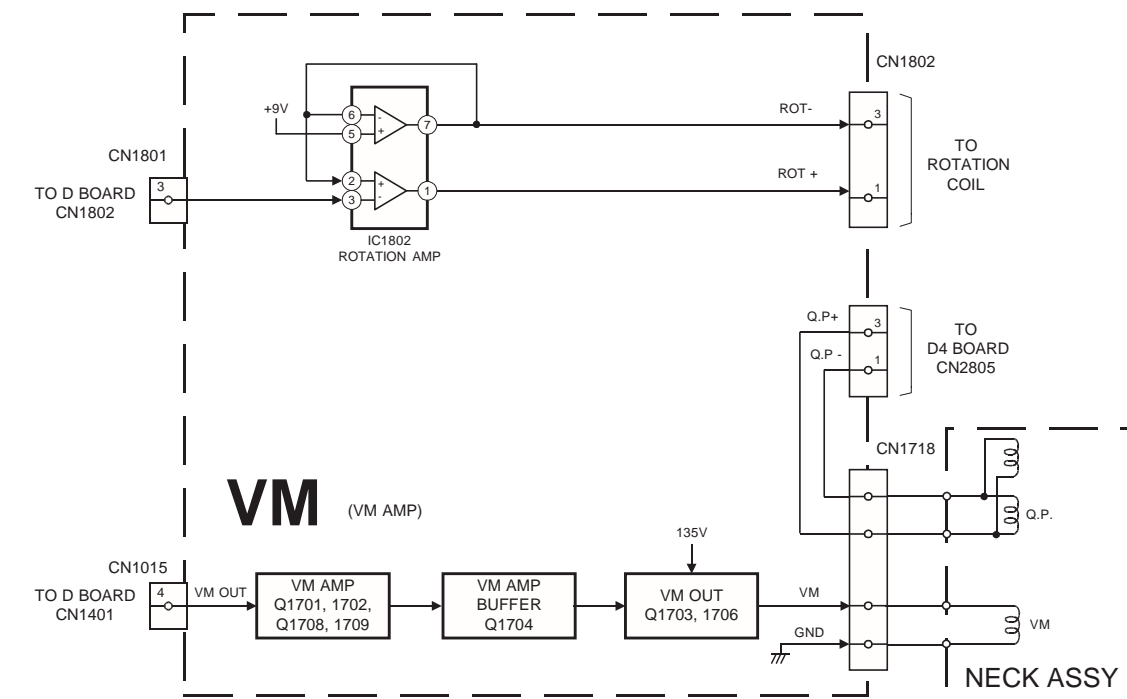
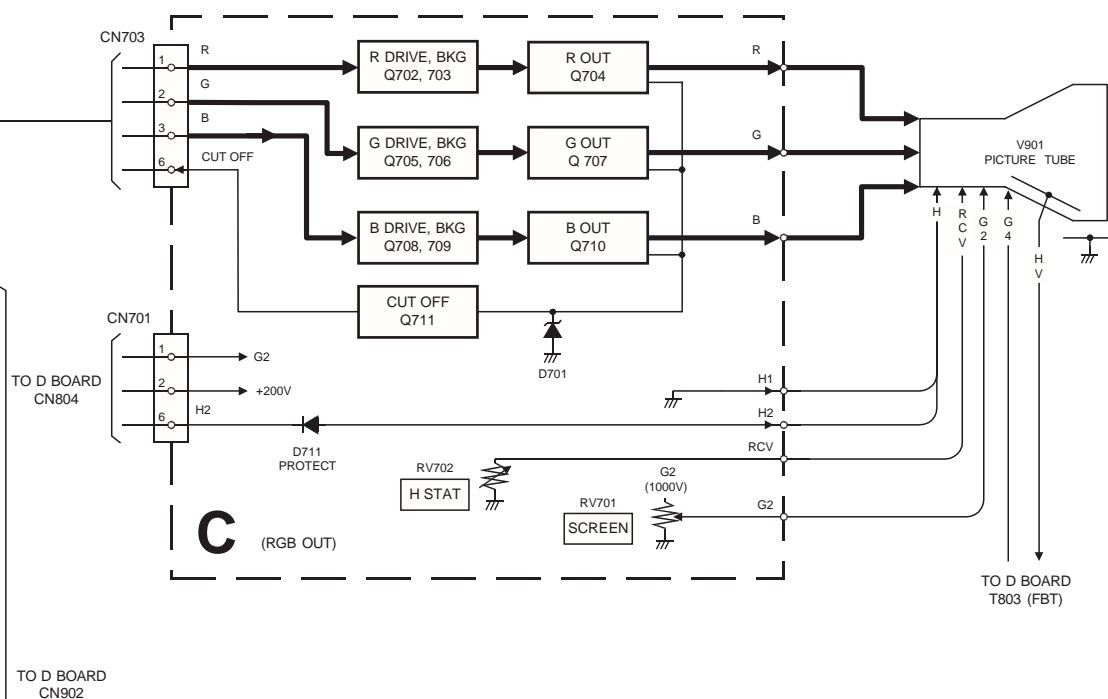
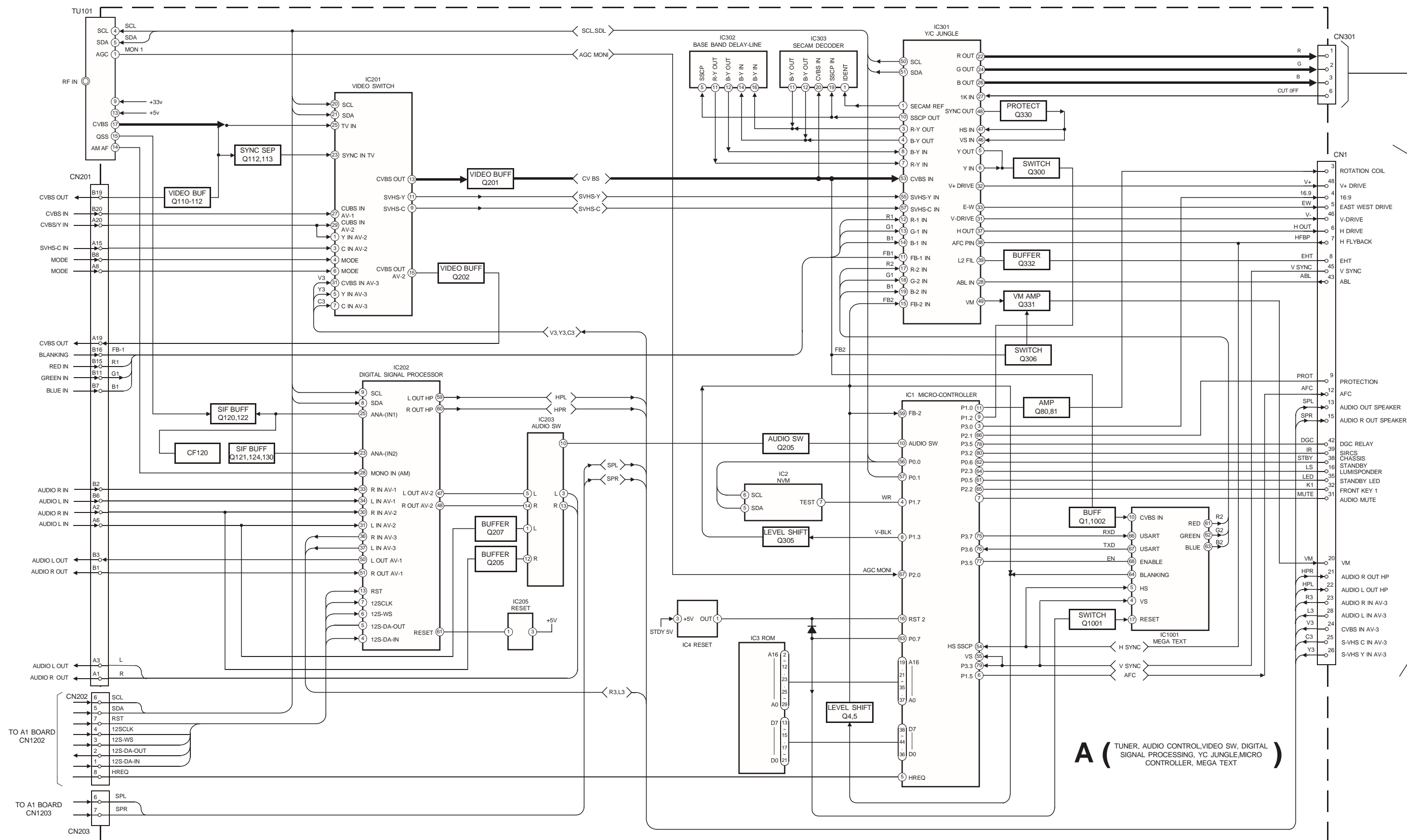
Flash Timing Example : e.g. error number 3



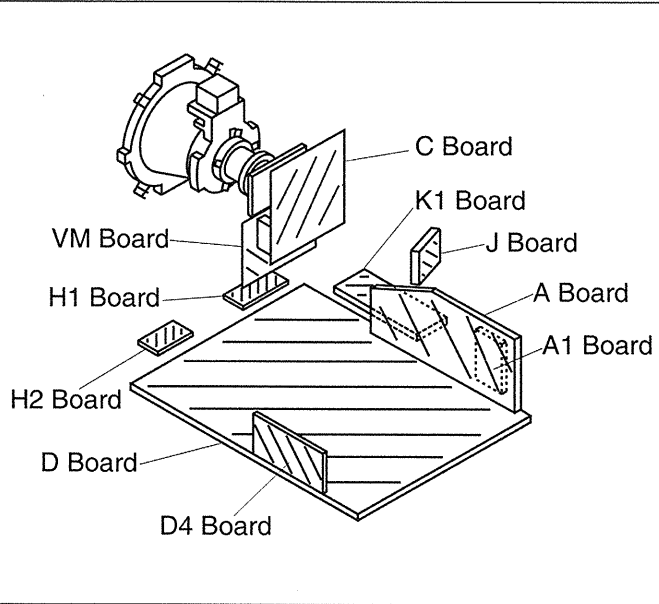
5-1 BLOCK DIAGRAMS (1)



5-1 BLOCK DIAGRAMS (2)



5-2. CIRCUIT BOARD LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

- Note :**
- All capacitors are in μF unless otherwise noted.
 - pF : μF 50WV or less are not indicated except for electrolytic types.
 - Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Electrical power rating : 1/4W

- Chip resistors are 1/10W
- All resistors are in ohms.
k = 1000 ohms, M = 1000,000 ohms

- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation or adjustment for repair.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital multimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerances.

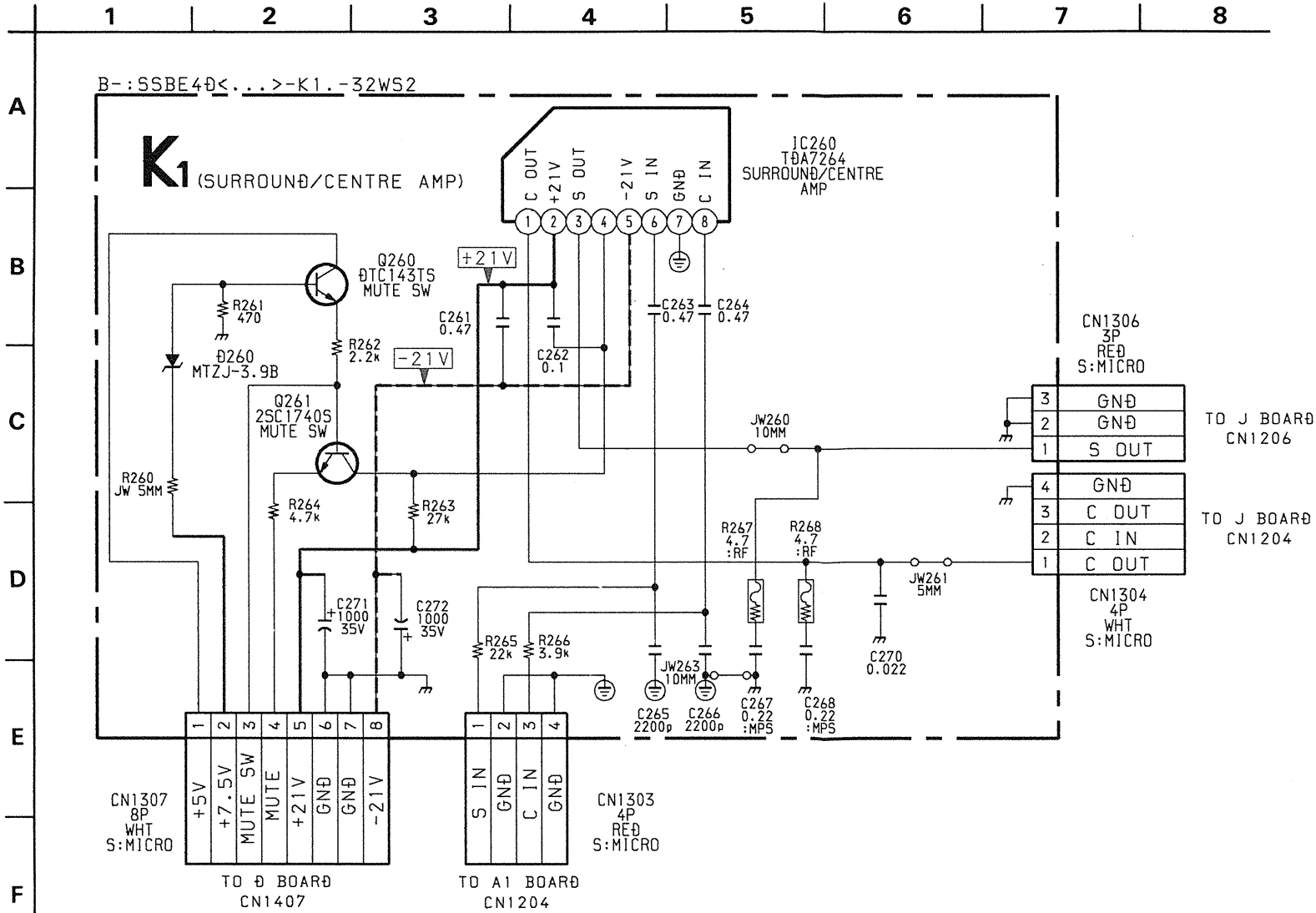
- : B + bus.
- : B - bus.
- : RF signal path.
- : earth - ground.
- : earth - chassis.

Reference Information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
COIL	RW	: NON FLAMMABLE WIREWOUND
		: ADJUSTMENT RESISTOR
	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

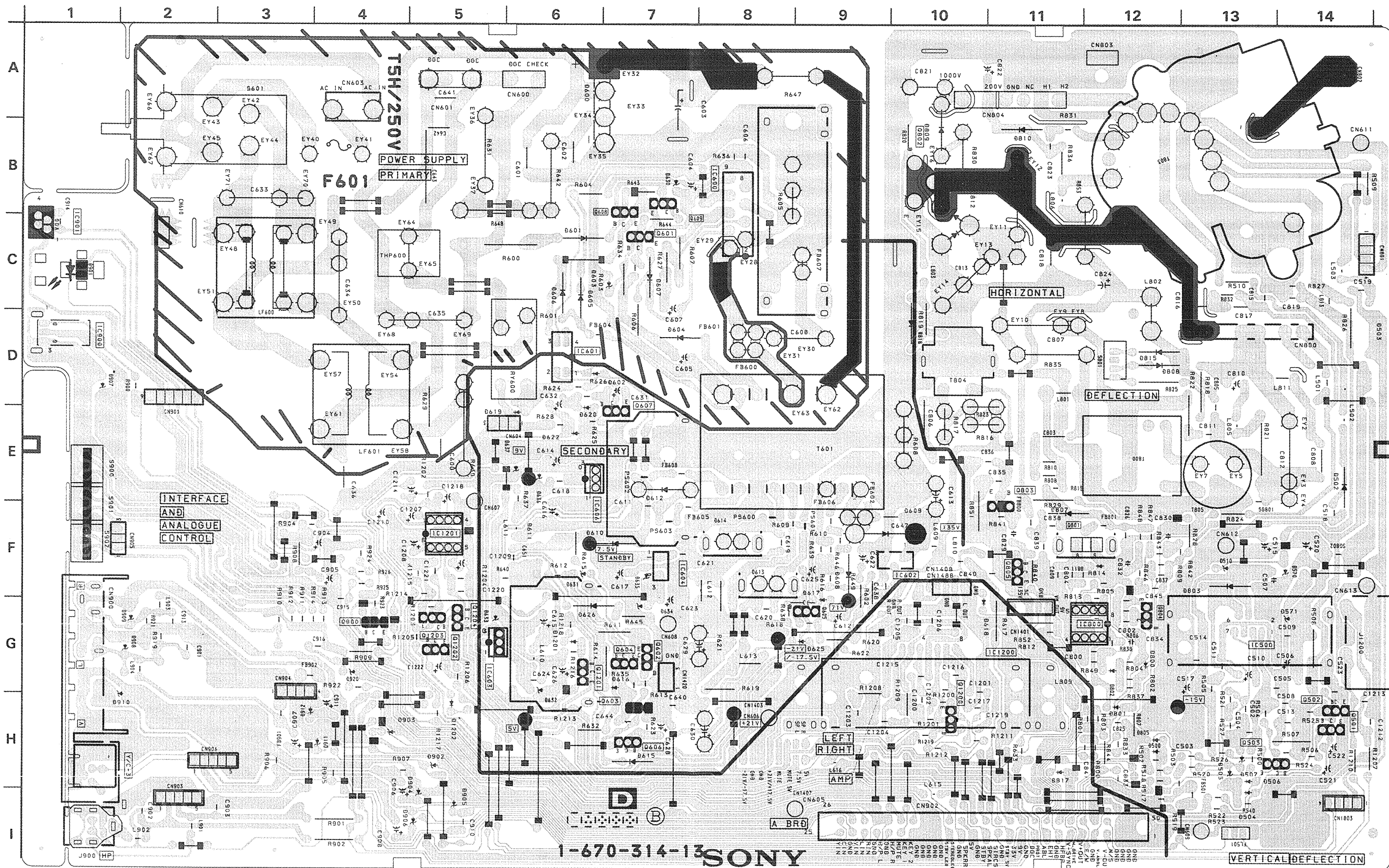
Note : The components identified by shading and marked are critical for safety. Replace only with the part numbers specified in the parts list.

Note : Les composants identifiés par une trame et par une marque sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.



D [HV OUT, PIN OUT, POWER SUPPLY,
AUDIO IN, Y-CHROMA IN, HEADPHONE AMP]

D Board



D BOARD

IC		DIODE	
IC500	G - 13	D603	C - 7
IC600	B - 8	D604	D - 7
IC601	D - 6	D605	C - 6
IC602	F - 10	D606	C - 6
IC603	G - 5	D607	C - 7
IC604	F - 7	D608	F - 9
IC606	E - 6	D609	F - 9
IC800	F - 12	D610	F - 7
IC900	D - 1	D611	F - 6
IC1200	G - 10	D612	E - 7
IC1201	F - 5	D613	F - 8
		D614	F - 8
		D615	H - 7
		D616	G - 7
		D617	F - 9
		D618	F - 11
		D619	E - 6
		D620	E - 6
		D622	E - 6
		D625	G - 9
		D626	G - 6
		D631	F - 6
		D637	E - 5
		D800	F - 12
		D801	G - 12
		D802	G - 12
		D803	F - 13
		D807	E - 12
		D808	E - 14
		D809	A - 14
		D810	A - 13
		D812	B - 11
		D815	E - 14
		D817	H - 11
		D902	I - 5
		D903	H - 4
		D904	H - 5
		D905	I - 5
		D906	I - 5
		D907	D - 1
		D910	G - 2
		D920	G - 2
		D1201	G - 6
		D1202	G - 5

TRANSISTOR	
Q501	H - 14
Q502	H - 14
Q503	H - 14
Q601	C - 7
Q602	G - 7
Q603	H - 7
Q604	G - 7
Q605	F - 9
Q606	H - 7
Q607	D - 7
Q802	A - 11
Q803	E - 11
Q805	F - 10
Q900	G - 4
Q1200	H - 10
Q1201	G - 6
Q1202	G - 5
Q1203	G - 5
Q1204	G - 5

DIODE	
D500	H - 12
D502	H - 13
D503	I - 14
D504	H - 11
D505	H - 13
D506	I - 14
D507	H - 13
D510	F - 13
D570	F - 14
D571	F - 13
D600	A - 7
D601	C - 6

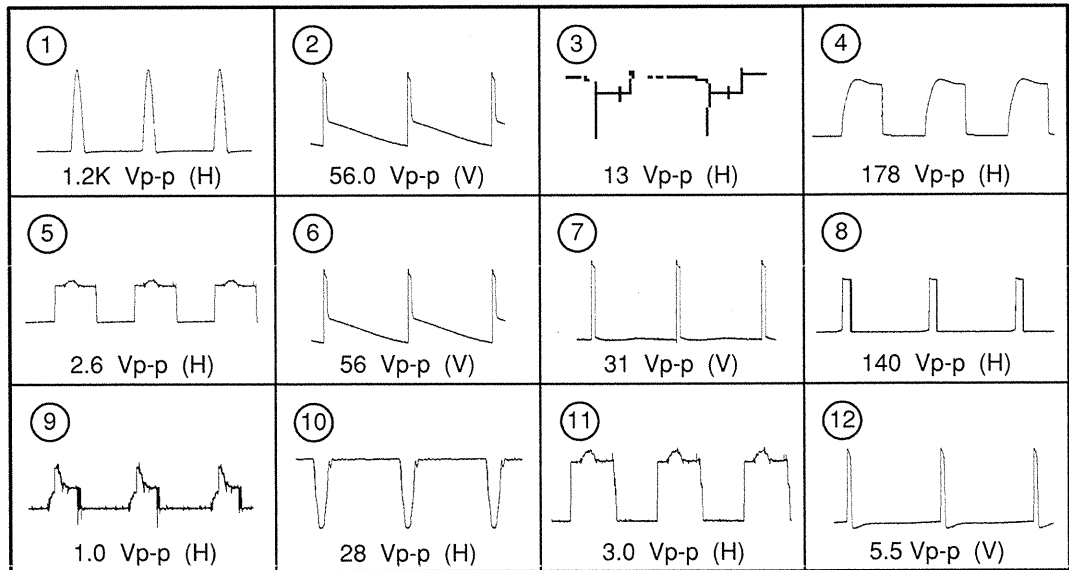
D BOARD
IC VOLTAGE TABLE

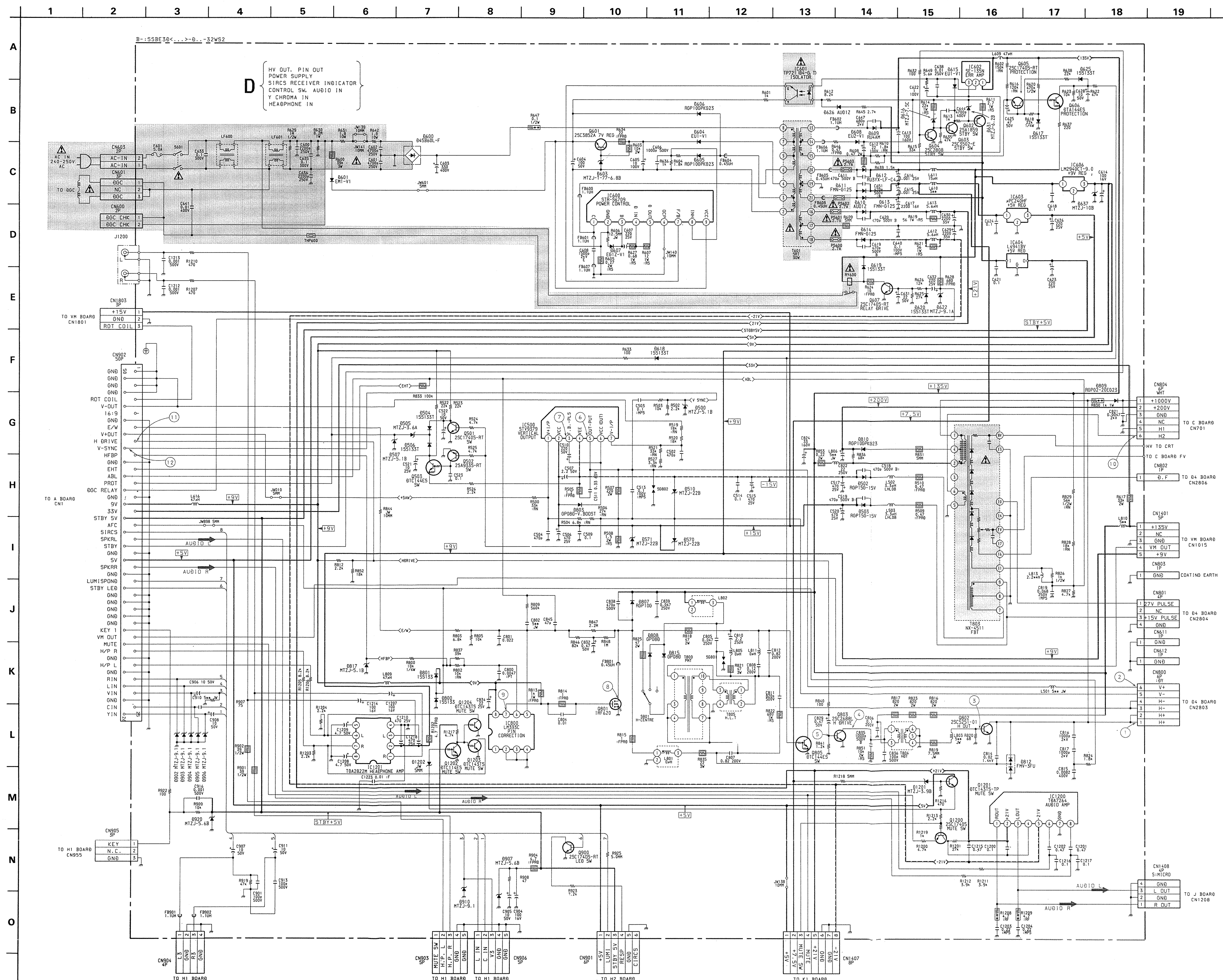
IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC500	1	1.5
	2	15.0
	3	-12.3
	4	-14.0
	5	0.1
	6	15.2
	7	1.4
IC600	1	170.0
	2	-62.4
	3	-62.6
	4	-62.2
	5	-62.0
	6	-62.6
	7	-62.4
IC601	8	-62.0
	9	-58.0
	1	64.3
	2	63.0
	3	-62.5
	4	-58.6
IC602	1	135.0
	2	63.2
	3	-0.1
IC800	3	0.9
	5	1.5
	6	2.0
	7	0.2
	8	9.0
IC1200	2	21.7
	4	21.5
	5	-21.7
IC1201	1	4.0
	2	9.0
	3	4.0
	5	0.5
	6	0.5

D BOARD
TRANSISTOR VOLTAGE TABLE

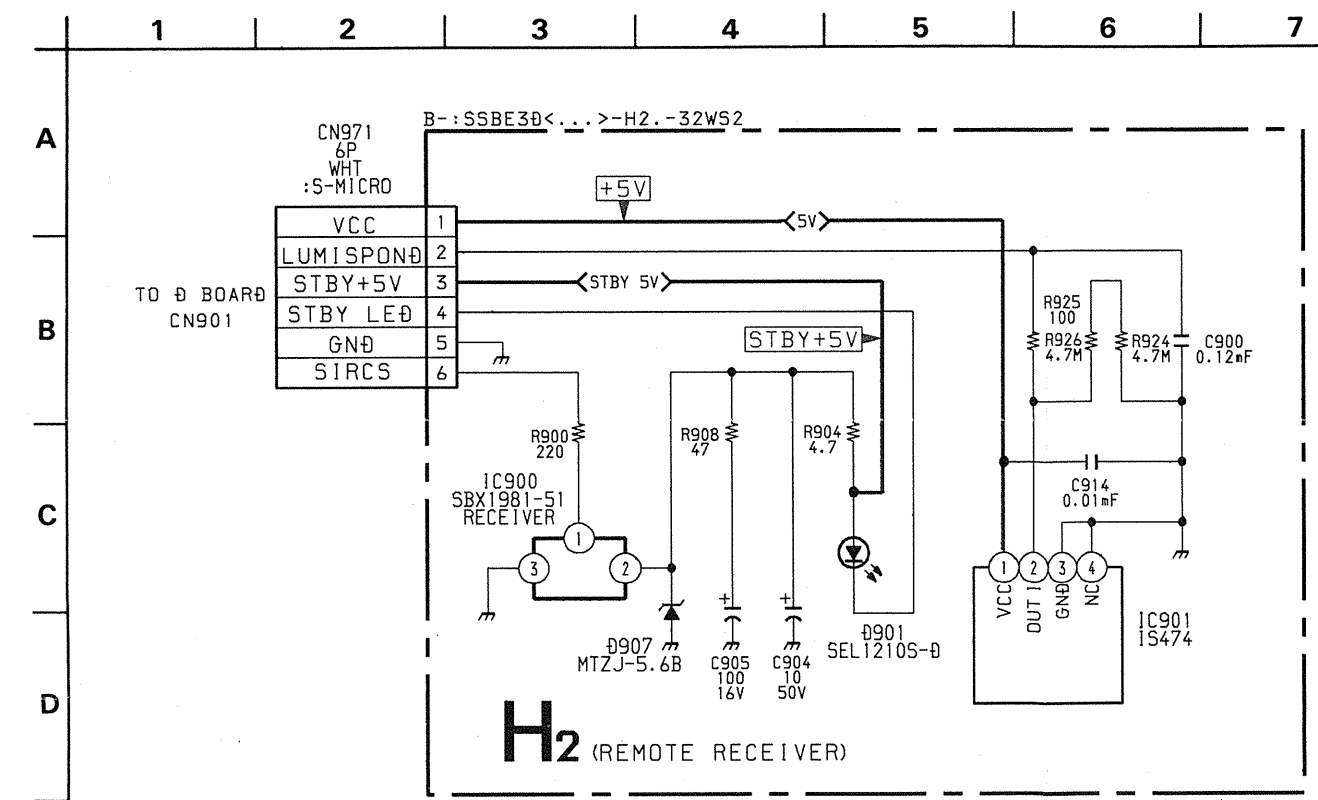
Transistor Voltage Table			
Ref No	(B) Base	(C) Collector	(E) Emitter
Q501	-0.1	0.2	-
Q502	0.1	-5.8	-
Q503	-5.8	-12.0	-12.0
Q602	72.0	7.5	72.7
Q603	0	72.0	-
Q604	0.7	-	-
Q605	0.5	-	0.3
Q606	-	-	12.0
Q607	-	12.0	-
Q802	-0.2	143.3	-
Q803	-0.6	99.8	-
Q805	-	3.6	-
Q900	-	5.4	-
Q1200	2.9	21.5	4.6
Q1201	3.4	5.0	3.0
Q1202	2.8	-	-

WAVEFORMS D BOARD

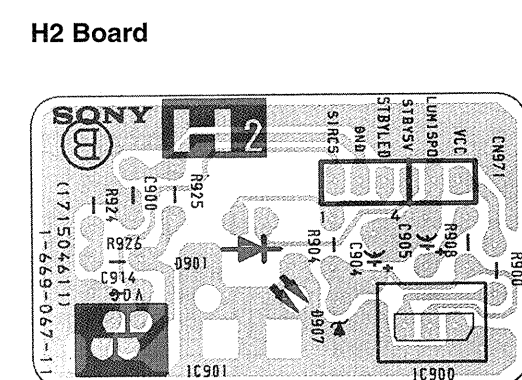




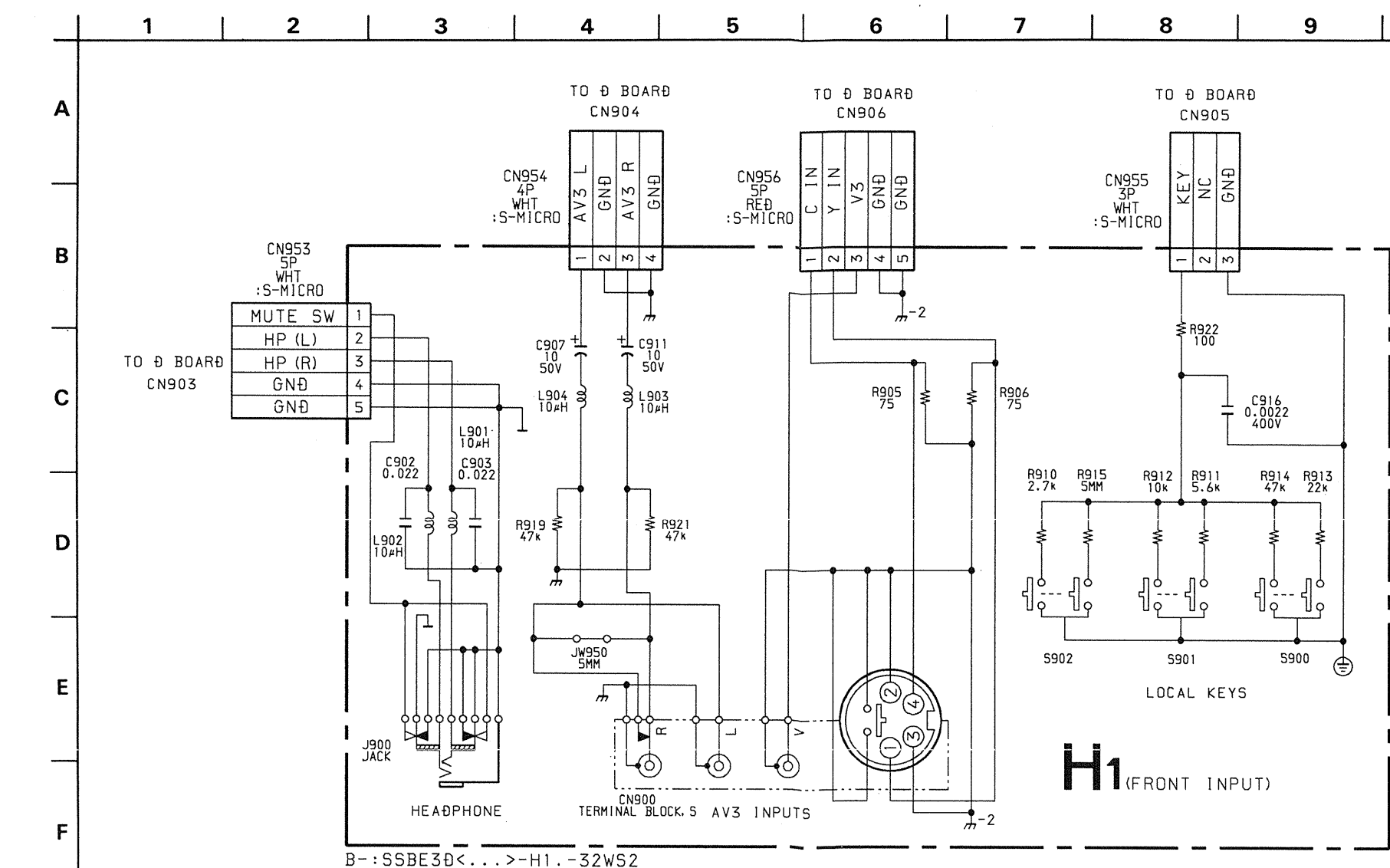
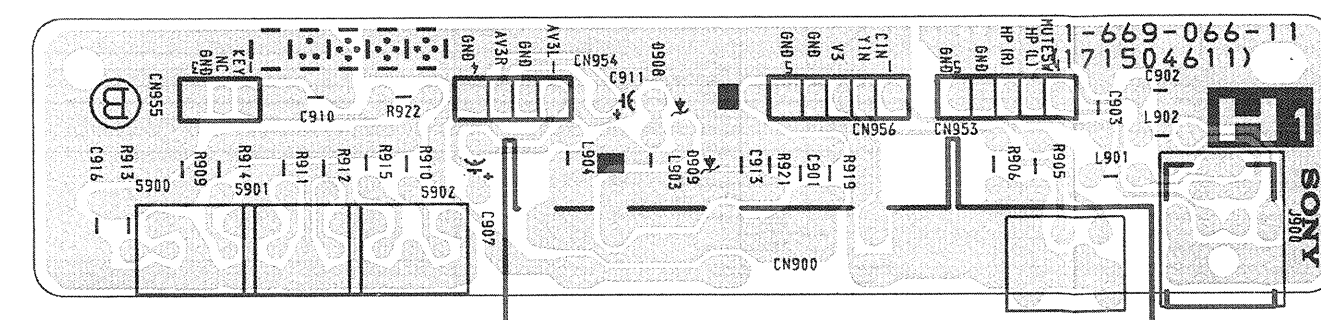
H1 [FRONT INPUT]

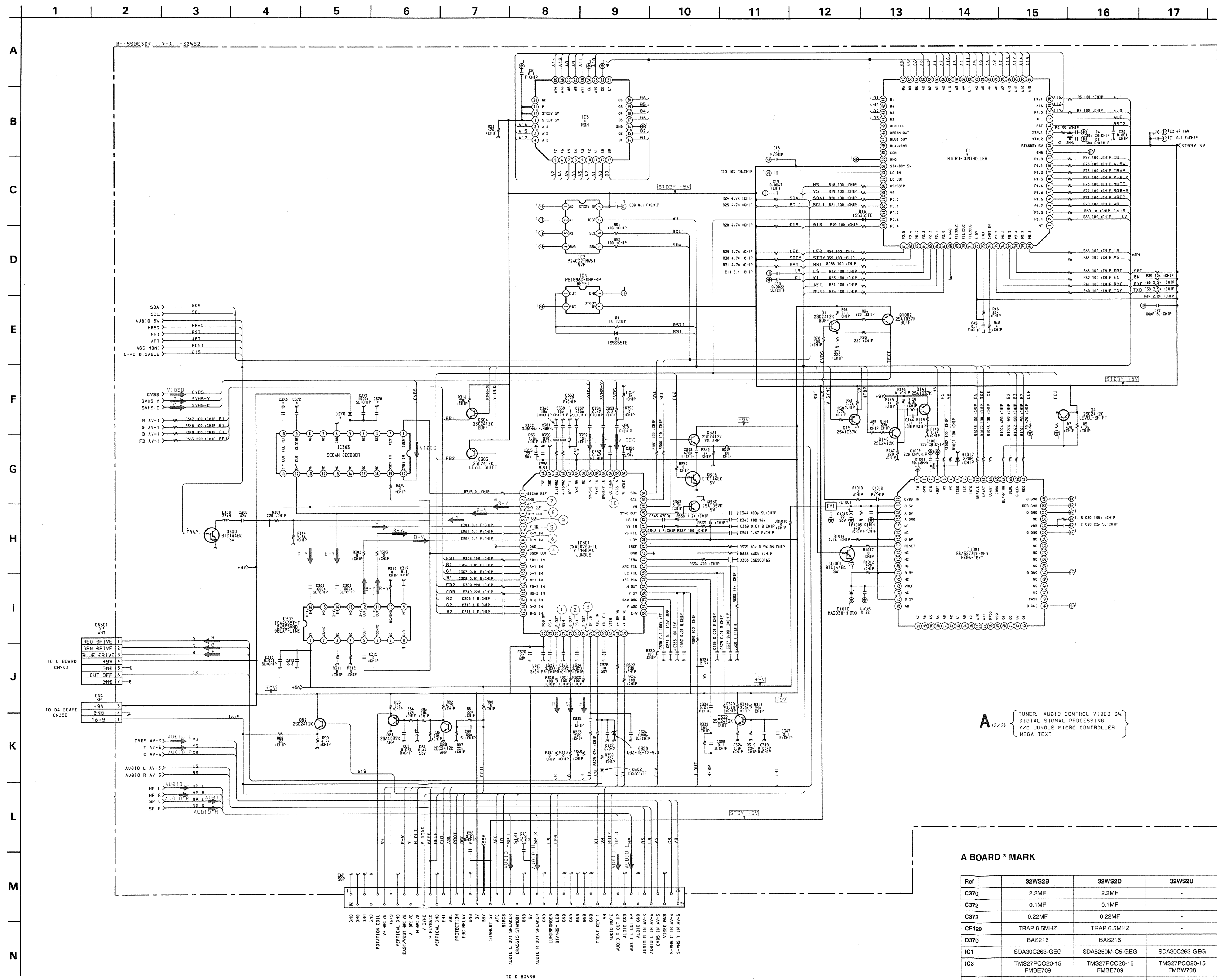
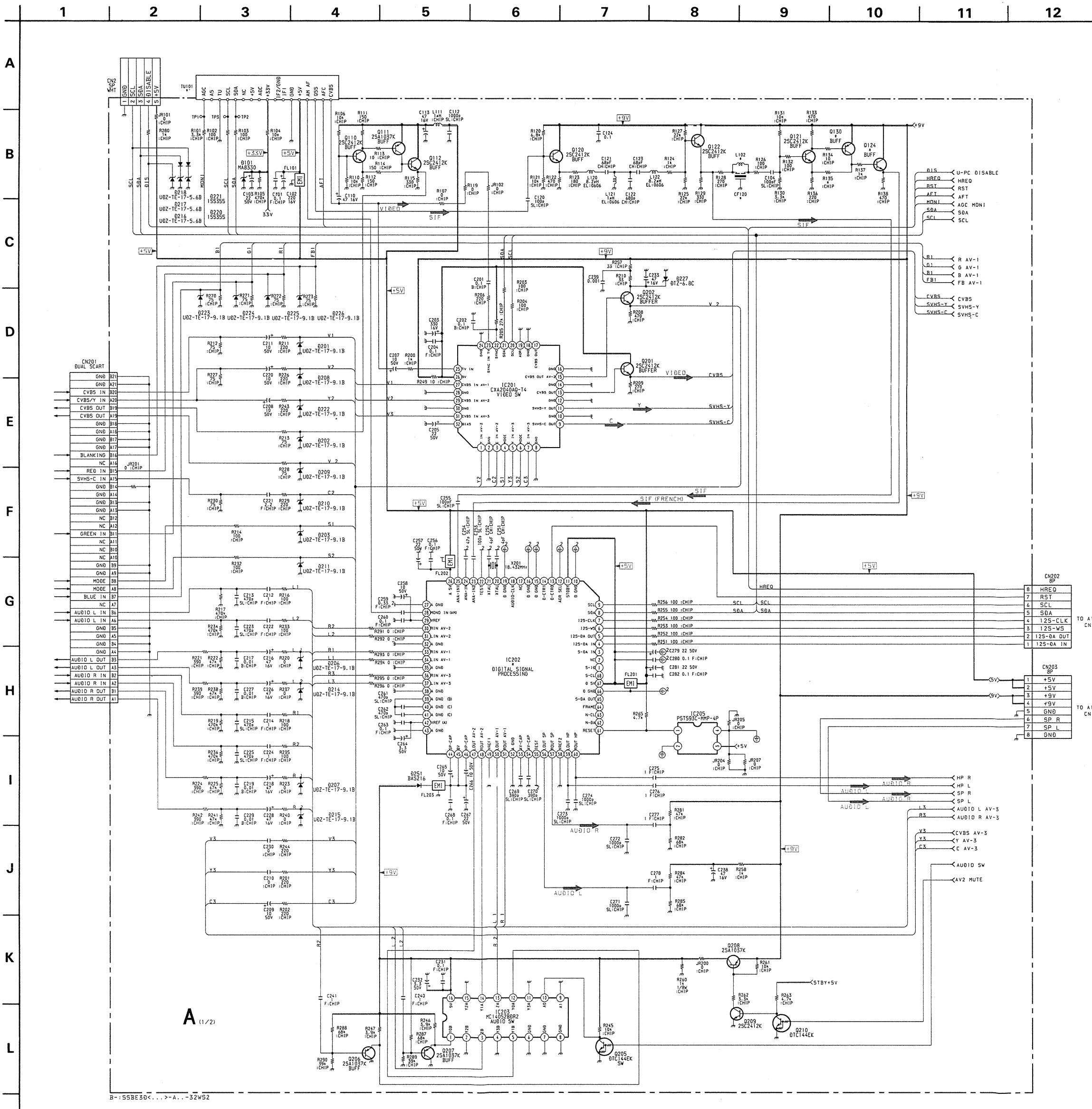


H2 [REMOTE RECEIVER]



H1 Board





A (1/2) BOARD
IC VOLTAGE TABLE

IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC201	13	4.4
	15	4.4
	20	3.5
	21	2.7
	22	4.9
	23	4.4
	24	0
	25	4.4
	26	8.8
	32	4.4
	4	2.8
	6-7	0.1
	8	3.0
	9	3.6
IC202	11	4.7
	13	4.7
	20-21	2.4
	23	0.2
	25	1.5
	26	4.8
	28	3.8
	29	2.6
	39-42	3.8
	44	7.1
	45	8.0
	46	7.1
	47-48	3.8
IC203	53-54	3.8
	1	4.7
	3	3.8
	5	3.8
	10	9.0
	12	4.7
	13	3.8
	14	3.8

A (2/2) BOARD
TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	(B) Base	(C) Collector	(E) Emitter
Q1	3.7	4.8	3.1
Q4	0.1	4.8	-
Q15	-	4.3	-
Q16	4.3	0.2	-
Q17	0.4	3.5	-
Q18	3.5	0.7	-
Q80	2.6	2.2	-
Q81	2.4	-	3.0
Q304	-	4.8	-
Q305	-	4.8	-
Q330	4.5	-	5.1
Q331	6.3	8.8	5.7
Q332	3.1	8.8	2.5
Q1001	4.4	-	-

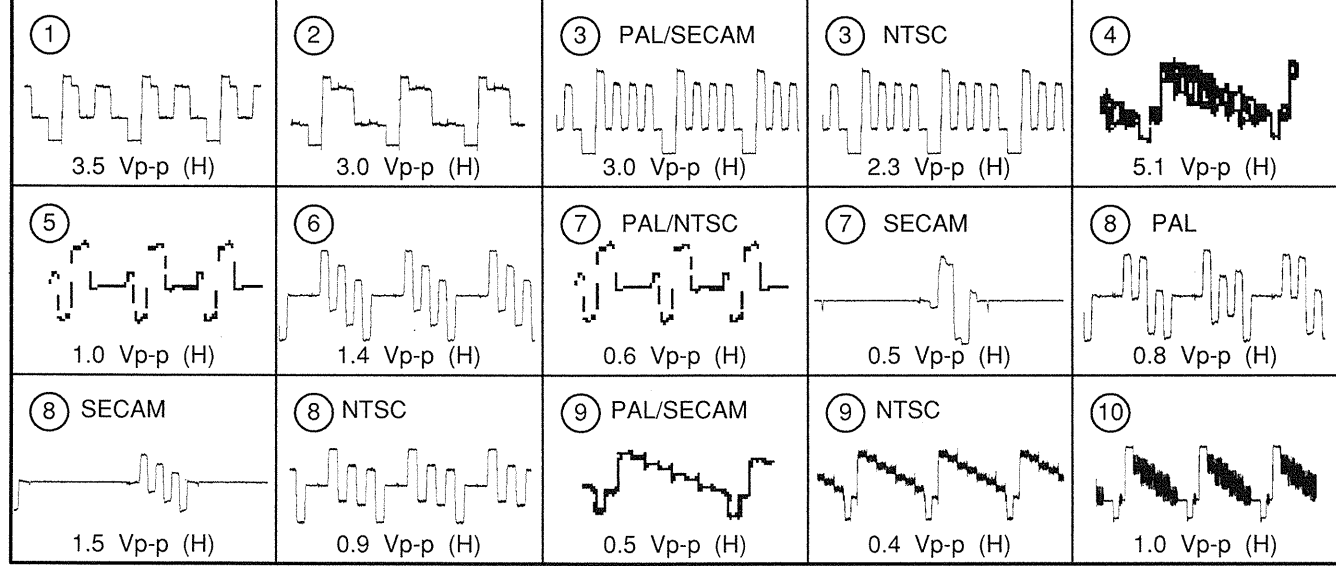
A BOARD * MARK

Ref	32WS2B	32WS2D	32WS2U
C370	2.2MF	2.2MF	-
C372	0.1MF	0.1MF	-
C373	0.22MF	0.22MF	-
CF20	TRAP 6.5MHZ	TRAP 6.5MHZ	-
D370	BAS216	BAS216	-
IC1	SDA30C263-GEG	SDA5250M-CS-GEG	SDA30C263-GEG
IC3	TMS27PC020-15	FMBE709	TMS27PC020-15
IC202	MSP3410B-PS-F7-T	MSP3400C-PS-C6-T-S	MSP3410B-PS-F7-T
IC203	TDA8395T/N3	TDA8395T/N3	-
L102	5.6UH	5.6UH	-
Q124	2SC-3052-EF	2SC-3052-EF	-
Q130	2SA1162-G	2SA1162-G	-
R48	1M	1M	-
R136	330	330	680
TU101	TUVIF(FR)	TUVIF(AEP)	TUVIF(UK)

A (1/2) BOARD
TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	(B) Base	(C) Collector	(E) Emitter
Q110	1.8	8.2	1.2
Q112	1.5	8.8	0.8
Q120	84.3	8.8	3.7
Q121	1.5	5.4	0.9
Q122	5.4	8.8	4.7
Q124	-	8.8	-
Q201	4.4	8.8	3.7
Q202	4.4	8.8	3.7

WAVEFORMS A BOARD

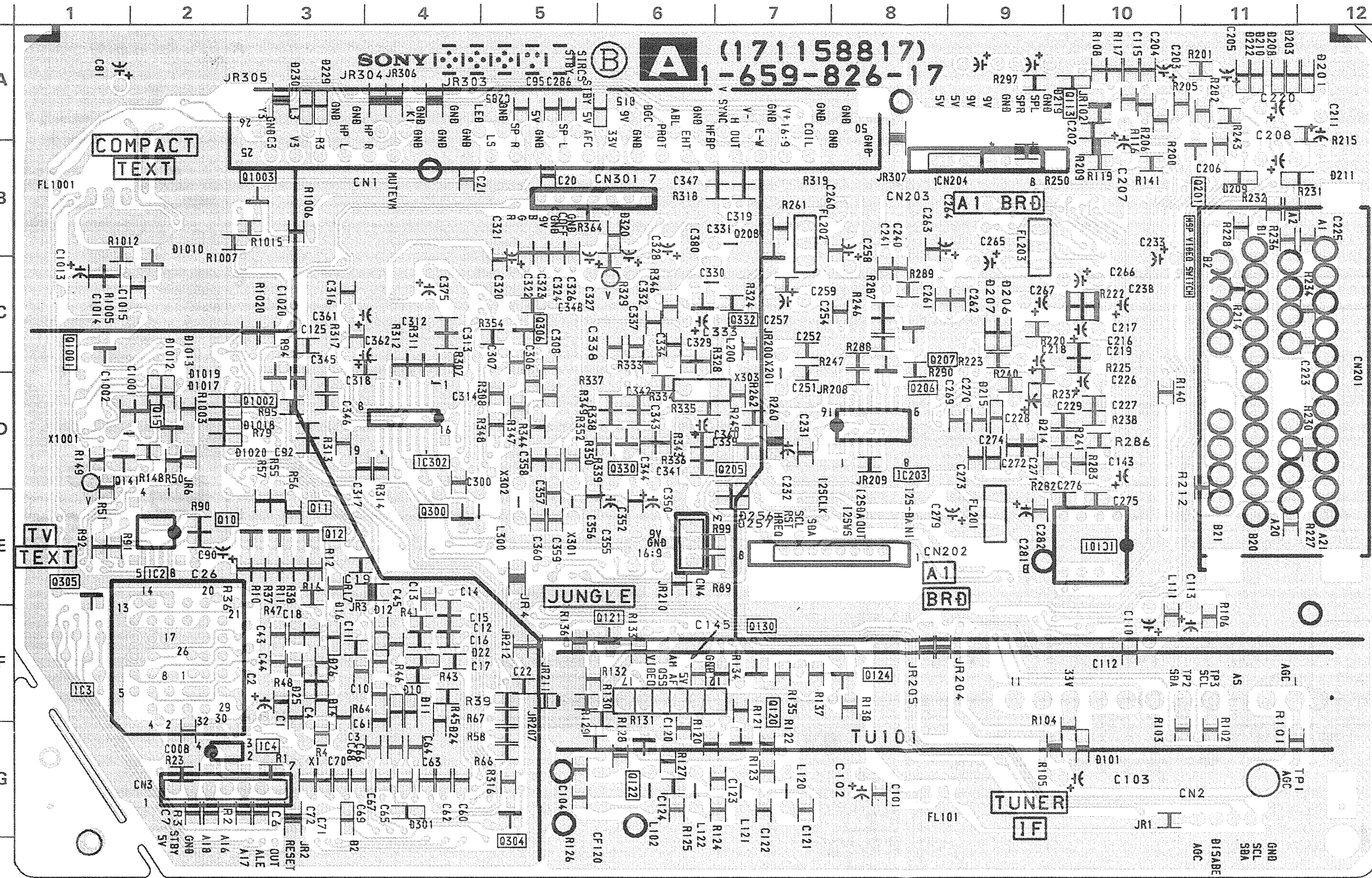


A (2/2) BOARD IC VOLTAGE TABLE

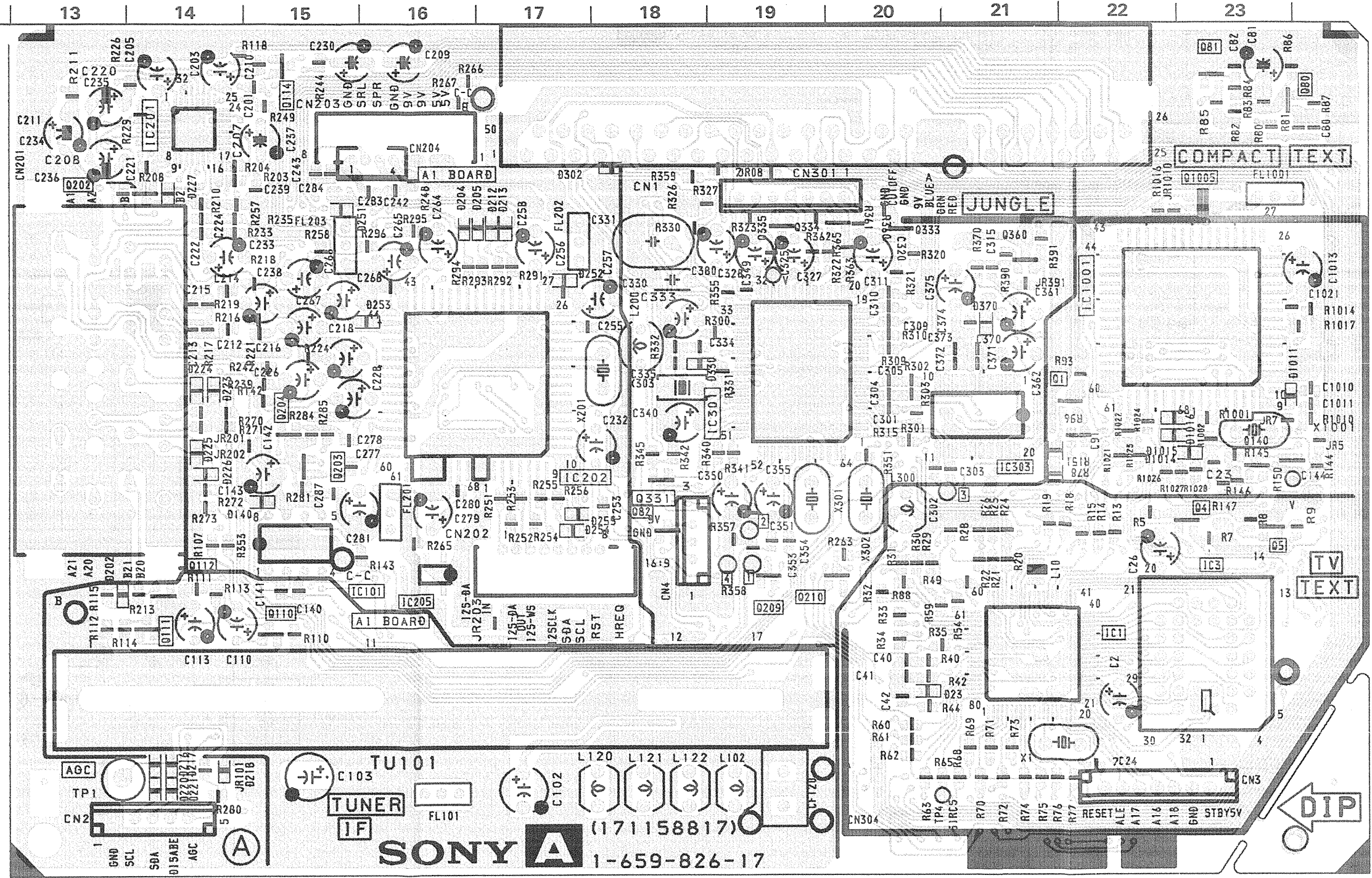
IC Voltage Table					
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC1	2	3.6	IC301	61	5.0
	3-4	4.8		62	7.6
	5	0.5		1	4.8
	7	4.8		5	0.7
	9	4.8		9	4.8
	11	2.4		11-12	3.0
	13	4.8		14	1.3
	14-15	2.3		16	1.3
	16-17	4.8		5	8.0
	48	4.0		3.2	10
	51	4.8		11	5.6
	52-53	2.4		0	19
	54	0.7		20	3.7
	55	0.2		4	0.2
	56-57	4.8		5	0.7
	58	2.8		4	0.2
	59	3.5		5	0.7
	60	2.4		6	1.7
	62	0.7		7	1.8
	63	4.4		10	0.4
	65	4.8		11-12	4.8
	66	2.1		16	4.8
	67	2.0		17	0
	69-71	2.3		21	4.8
	72	4.8		23	3.0
	73	1.5		25	4.8
	74	1.2		45	2.5
	75-77	4.8		46	3.9
	79	0.2		47	3.0
	80	4.8		48	4.4
	81	4.8		49	6.3
	82	4.8		50-51	0.1
	83	4.8		53	3.9
	84	4.8		54	5.0
	85	4.8		55-56	4.2
	86	4.8		58-59	8.8
	87	4.8		60	5.3
IC2	5-8	4.8	IC302	61	5.0
	9	4.8		62	7.6
IC3	1	4.8		1	4.8
	31-32	4.8		5	0.7
IC4	1	4.8		9	4.8
	3	4.8		11-12	3.0
IC301	1	1.5		14	1.3
	3-4	5.6		16	1.3

A [TUNER, AUDIO CONTROL, VIDEO SW, DIGITAL SIGNAL PROCESSING
YC JUNGLE, MICRO CONTROLLER, MEGA TEXT]

A Board < Conductor Side >

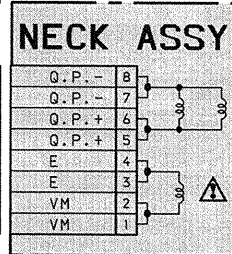
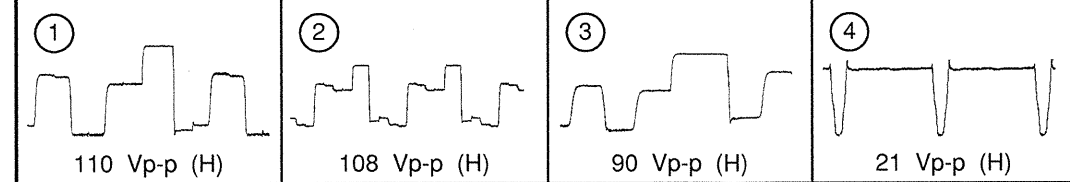
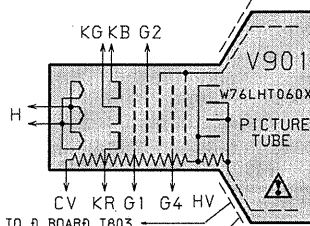


A Board < Component Side >



A BOARD

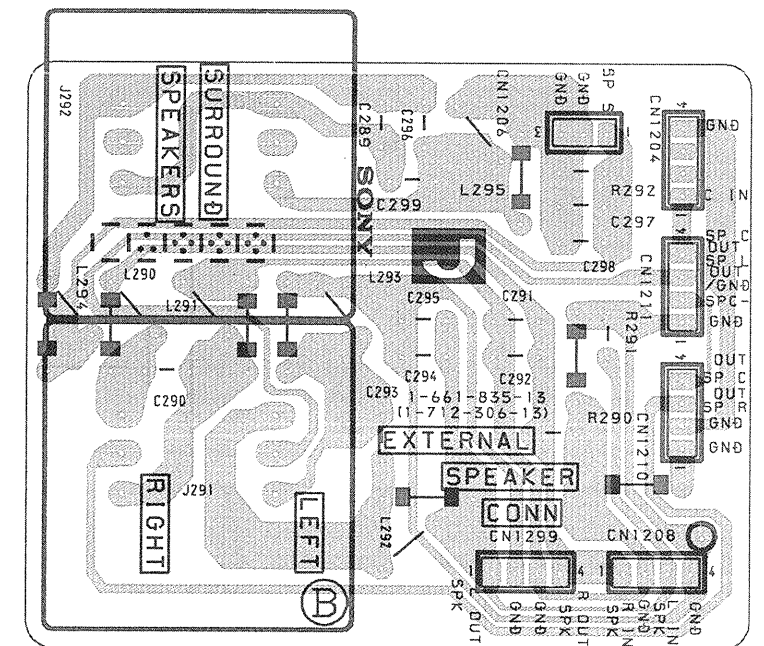
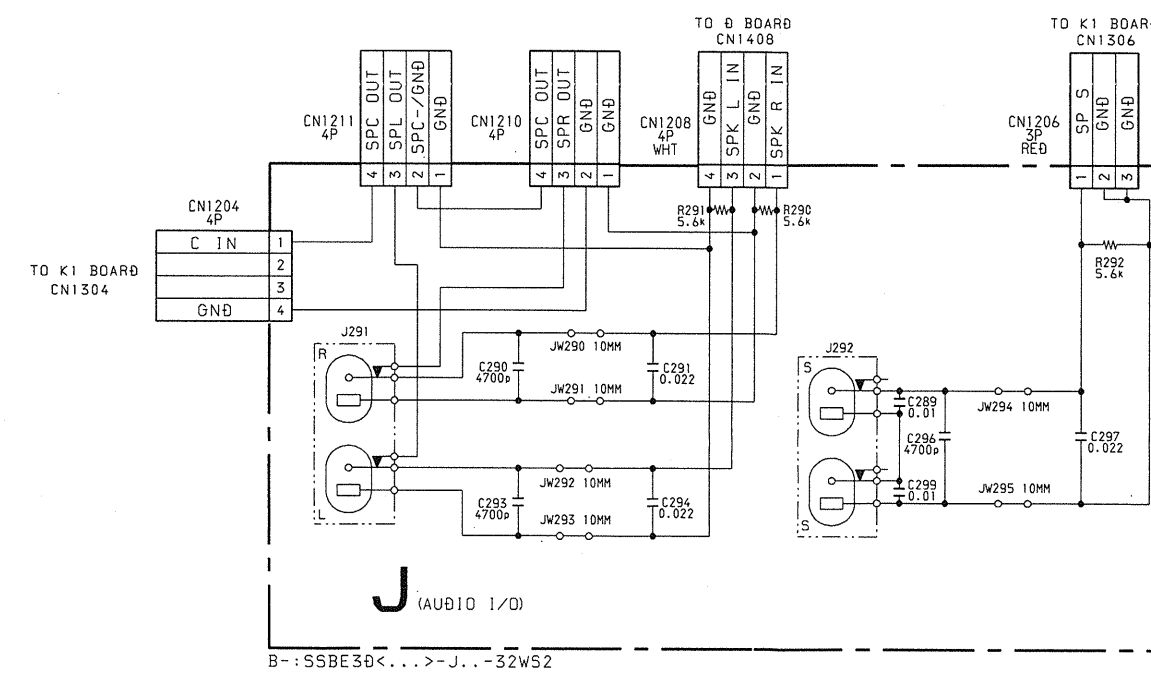
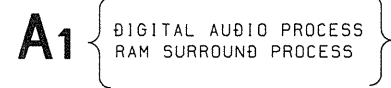
IC			DIODE		
IC1	F-21	Q330	D-6	Q331	D-18
IC2	E-2	Q332	C-6	Q1001	C-1
IC3	F-2	Q1001	C-1	Q1002	C-3
IC4	G-2				
IC201	A-14				
IC202	C-16	D2	G-3		
IC203	D-8	D16	E-21		
IC205	F-16	D101	F-9		
IC301	C-19	D201	A-11		
IC302	D-4	D202	E-13		
IC303	D-21	D203	A-11		
IC1001	G-14	D206	C-9		
TRANSISTOR			D207	C-9	
Q1	D-21	D208	A-11		
Q4	E-22	D209	B-11		
Q15	D-2	D210	A-11		
Q17	D-22	D211	B-11		
Q80	A-23	D212	B-16		
Q81	A-22	D214	D-9		
Q82	D-18	D215	D-9		
Q110	F-14	D216	G-14		
Q111	E-14	D217	G-14		
Q112	E-14	D218	G-14		
Q120	F-7	D220	G-14		
Q122	F-6	D221	D-14		
Q124	F-7	D222	D-14		
Q130	F-7	D223	D-14		
Q201	B-10	D224	D-14		
Q202	B-13	D225	D-14		
Q205	D-7	D226	D-14		
Q206	C-8	D227	B-14		
Q207	C-8	D251	B-15		
Q209	E-19	D302	B-17		
Q210	E-19	D320	C-5		
Q300	E-4	D370	C-21		
Q304	G-5	D1010	C-10		
Q305	E-1	D1012	F-20		
Q306	C-5				



Ref No	(B) Base	(C) Collector	(E) Emitter
Q702	2.0	11.4	1.4
Q703	12.0	168.3	11.4
Q704	168.3	6.0	163.5
Q705	1.7	11.4	1.2
Q706	12.0	178.8	11.4
Q707	178.2	6.2	173.8
Q708	2.0	11.4	1.4
Q709	12.0	168.3	11.4
Q710	168.0	6.4	160.0

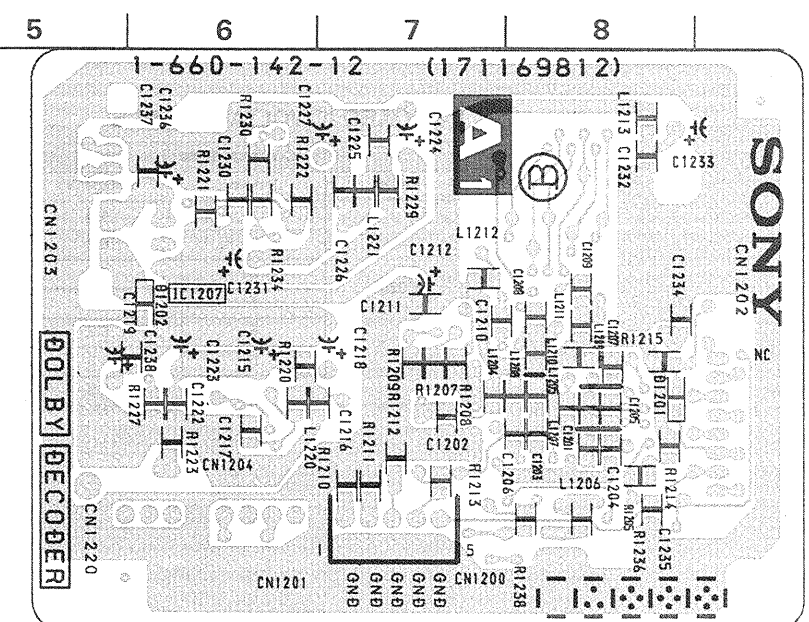
Transistor Output Table			
Ref No	(B) Base	(C) Collector	(E) Emitte
Q1701	2.5	8.8	1.8
Q1702	2.5	5.5	1.8
Q1703	134.3	71.8	134.8
Q1704	5.5	8.8	4.8
Q1706	1.0	71.8	0.4
Q1707	0.7	-	-
Q1708	2.9	6.6	2.2
Q1709	2.2	8.8	1.5
Q1840	0.6	-	-



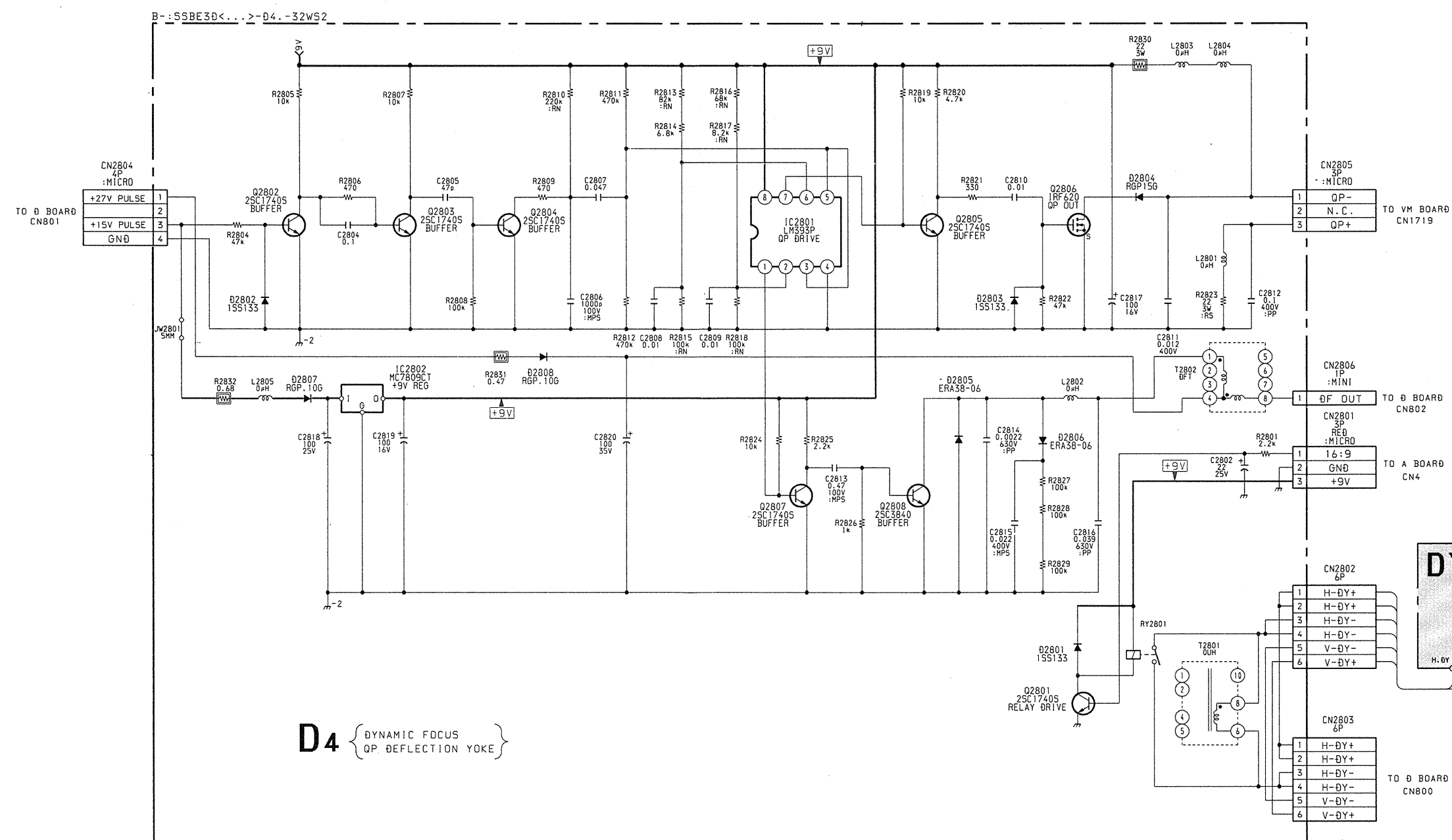


IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC1201	6	4.8
	9	4.8
	17	4.8
	26	3.5
	27	2.3
	28	4.8
	32	1.1
	33	4.8
	35	3.0
	36 - 40	4.8
	43	4.8
	48	4.8
	53	4.8
	58	4.8
	61	4.8
	70	4.8
IC1202	77 - 78	4.8
	22	4.8
IC1203	27 - 28	4.8
	5	5.0
	6	2.5
IC1204	7	0.8
	8	2.5
	5	5.0
	6	2.5
IC1205	7	0.8
	8	2.5
	1	2.3
	2 - 3	2.5
IC1206	5 - 6	2.5
	7	2.3
	8	5.0
	1	2.3
IC1206	2 - 3	2.5
	5 - 7	2.5
	8	5.0

IC		TRANSISTOR	
IC1201	B - 7	Q1201	B - 5
IC1202	A - 6	DIODE	
IC1203	B - 7	D1201	B - 4
IC1204	A - 7	D1203	C - 5
IC1205	B - 8		
IC1206	A - 7		
IC1207	B - 1		



D4 { DYNAMIC FOCUS, QP DEFLECTION YOKE }



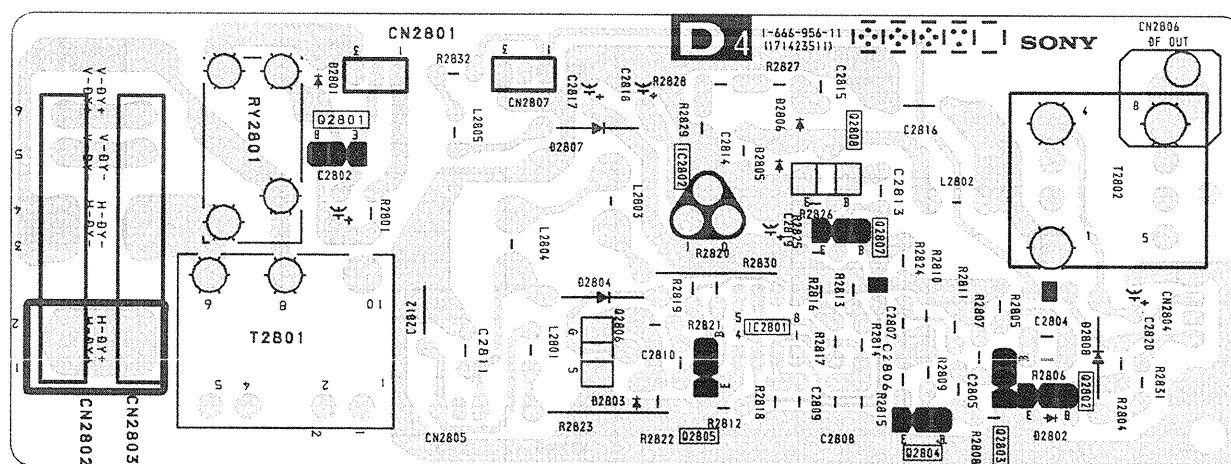
D4 BOARD IC VOLTAGE TABLE

IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC2801	1	4.6
	2	6.2
	3	7.5
	4	-
	5	6.2
	6	4.3
	7	2.5

D4 BOARD TRANSISTOR VOLTAGE TABLE

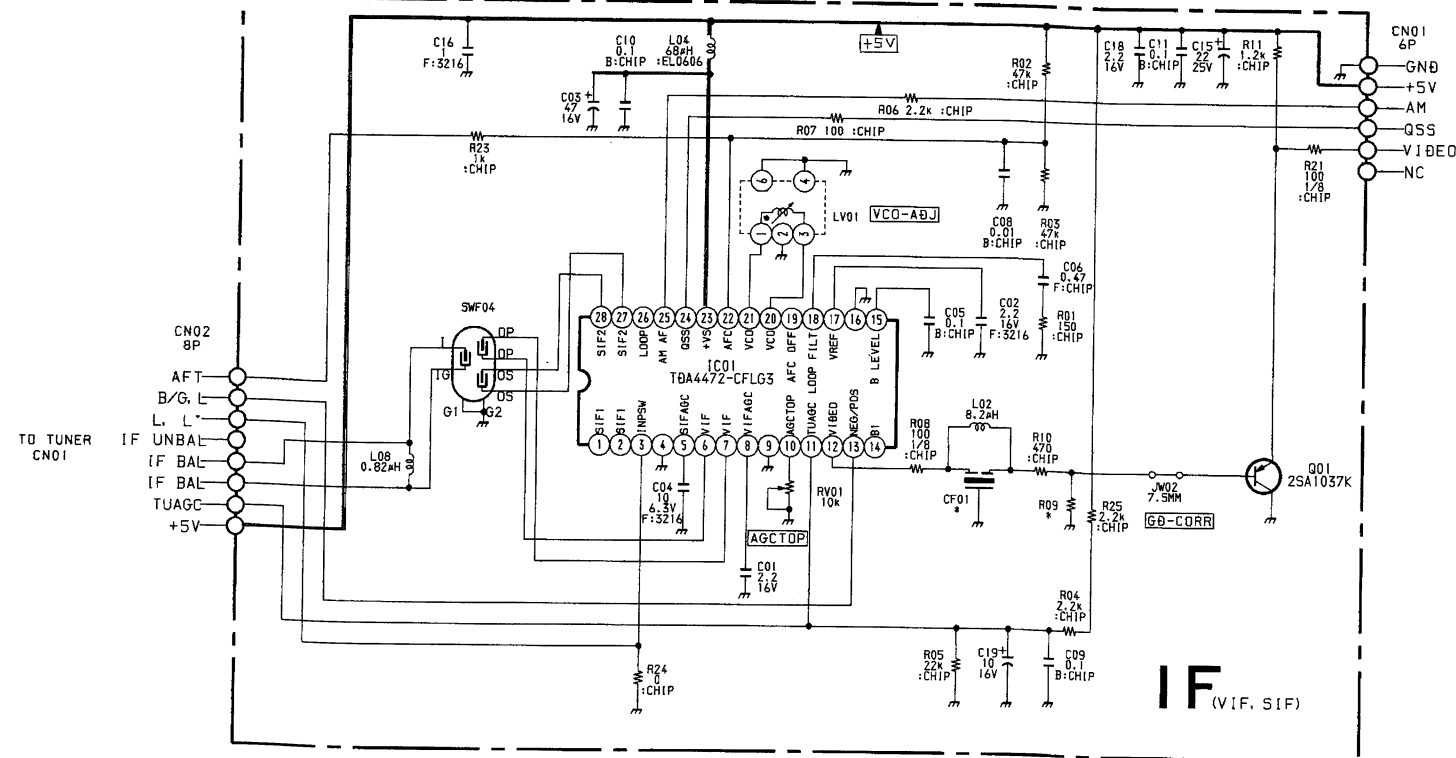
Transistor Voltage Table			
Ref No	(B) Base	(C) Collector	(E) Emitter
Q2801	2.4	8.7	1.8
Q2802	2.4	6.5	1.8
Q2803	133.4	52.0	133.8
Q2804	8.7	8.5	5.8
Q2805	0.8	52.0	0.5
Q2807	5.0	2.1	5.6
Q2808	5.4	8.0	4.7

D4 Board



TUVIF (AEP)
TUVIF (UK)

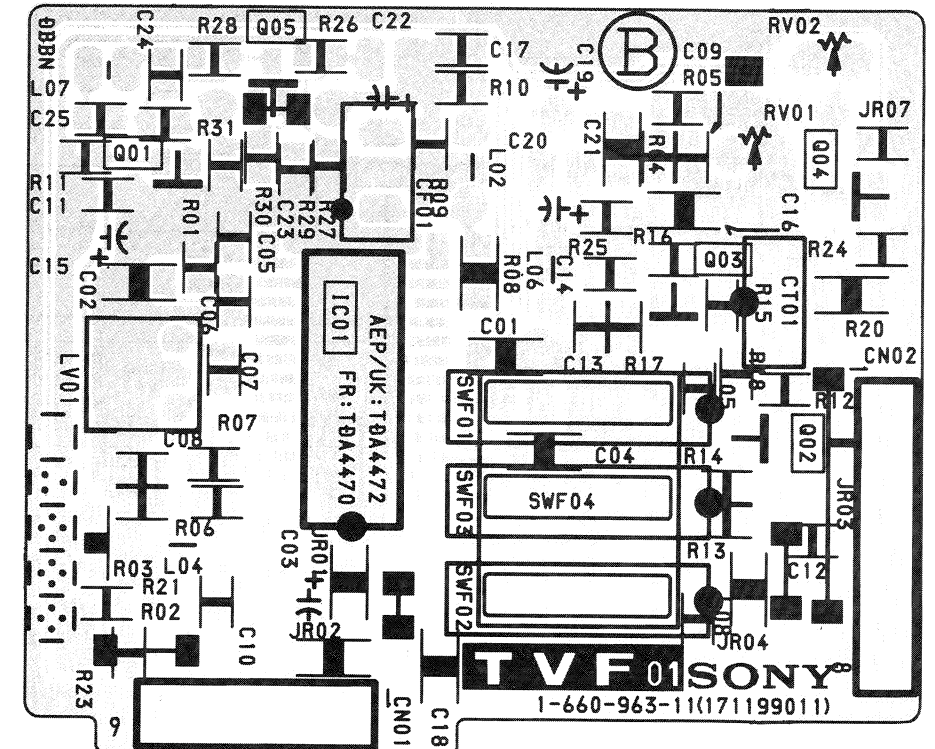
B-#TVF-01<UK/AEP>-IF.



IF

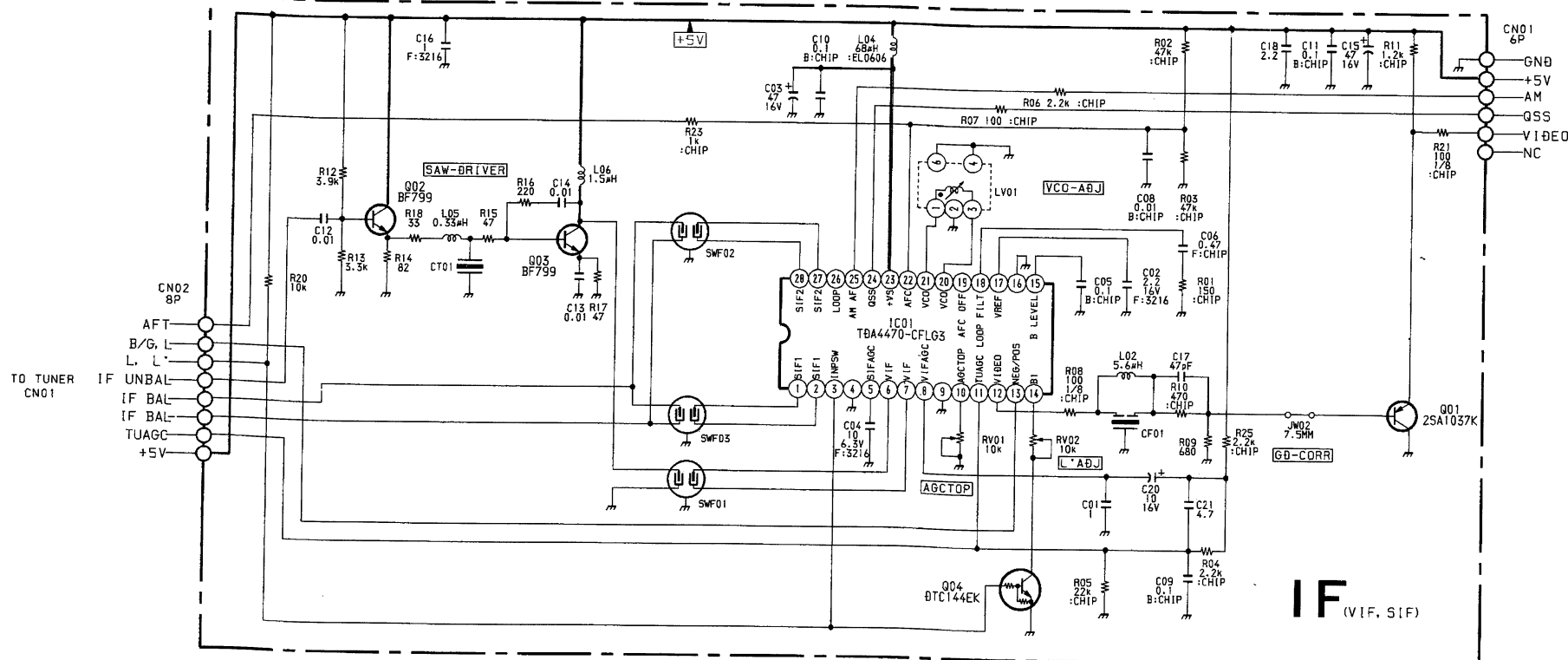
[VIF, SIF]

IF Board

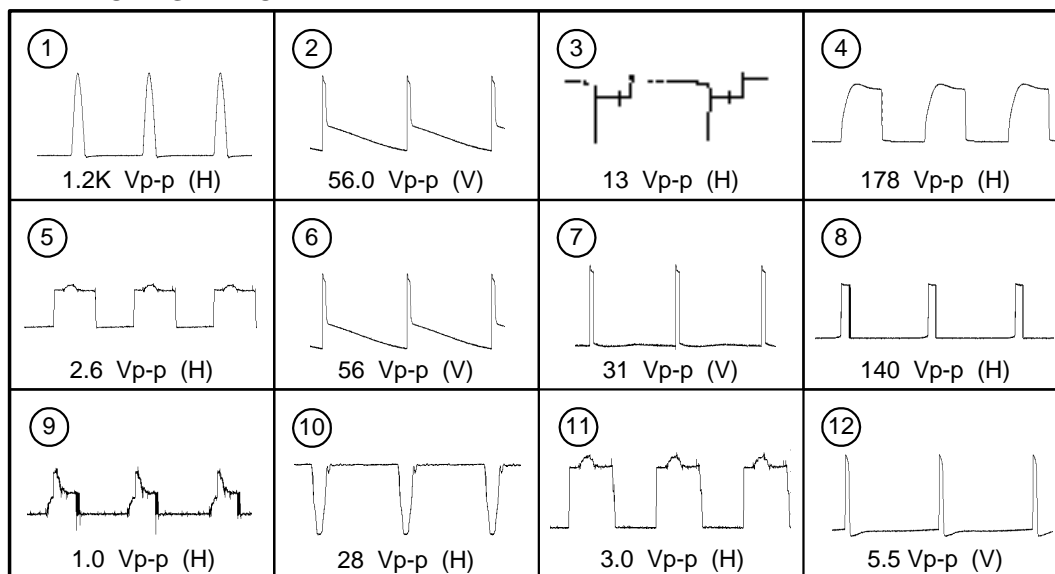


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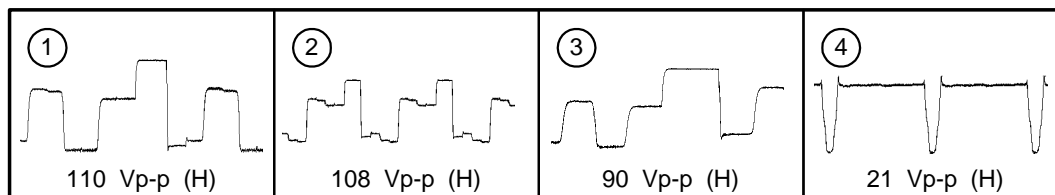
B-#TVF-01<FR.>-IF.



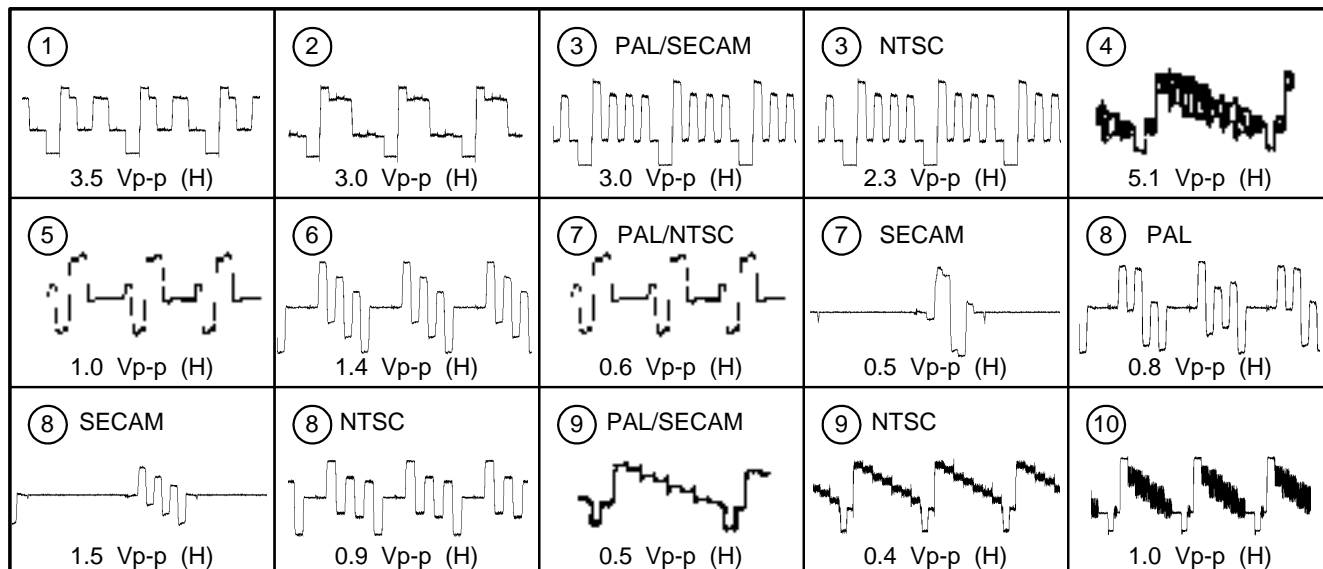
WAVEFORMS D BOARD



WAVEFORMS C BOARD

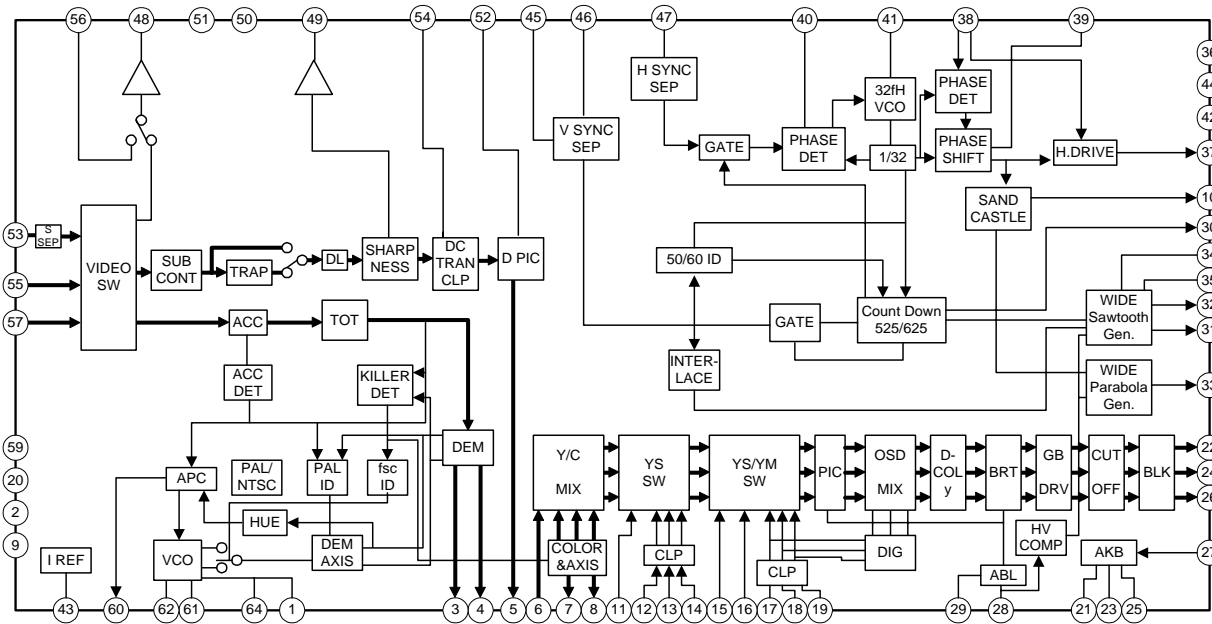


WAVEFORMS A BOARD

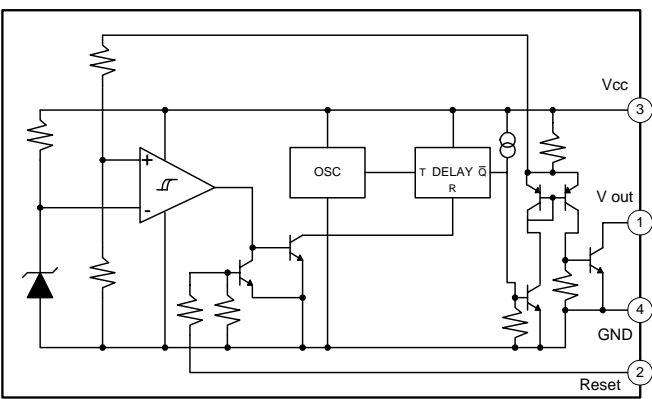


IC BLOCK DIAGRAMS

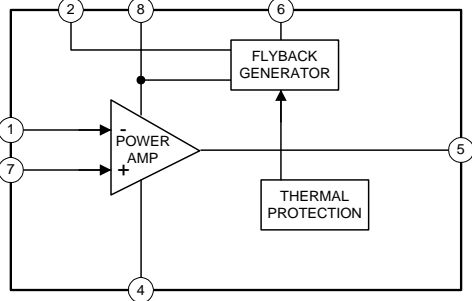
A BOARD IC301 CXA2076Q-TL



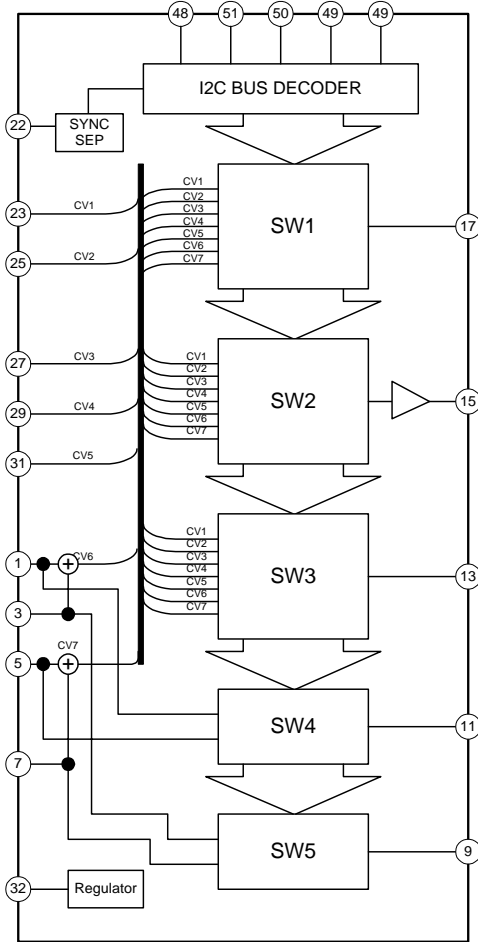
A BOARD IC4 PST593C



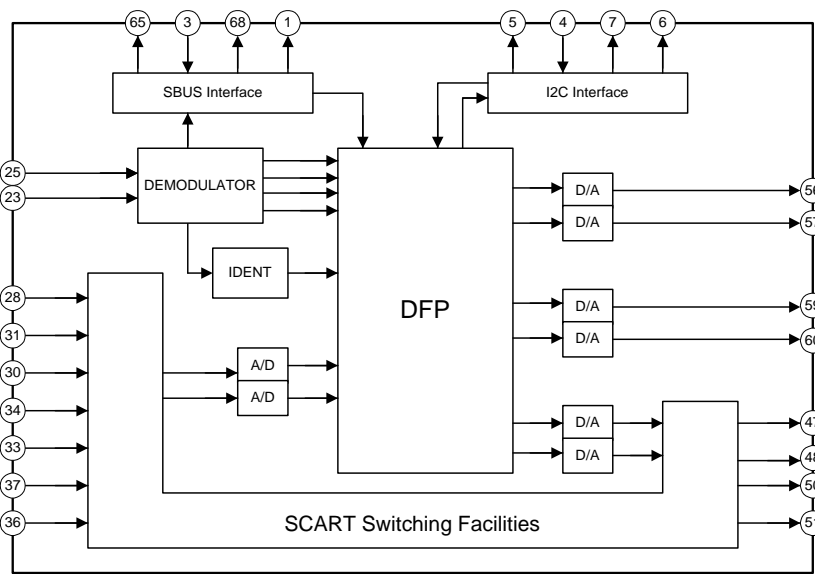
D BOARD IC500 STV9379



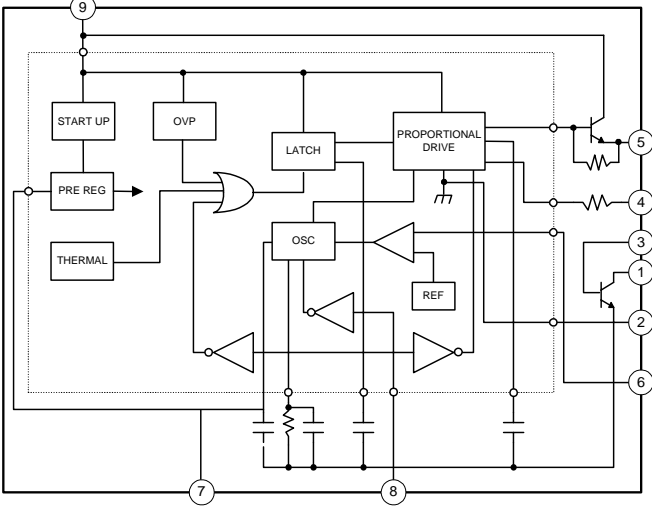
A BOARD IC201 CXA2040AQ



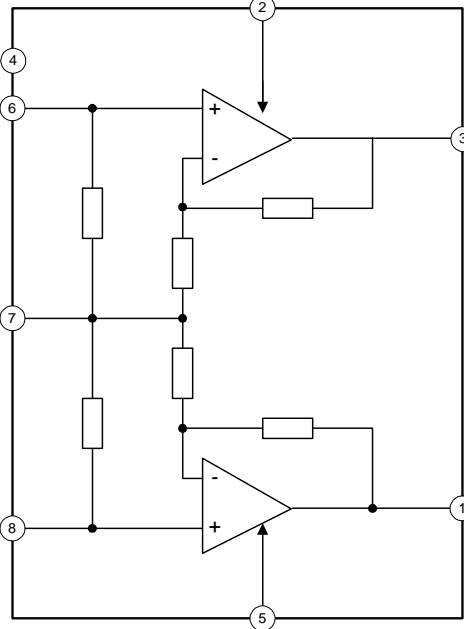
A BOARD IC202 MSP3410D



D BOARD IC600 STR-S6709

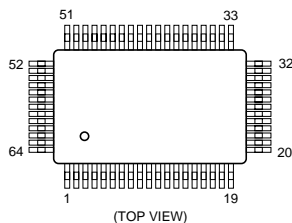


D BOARD IC1200 TDA7264

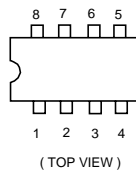


5-4 SEMICONDUCTORS

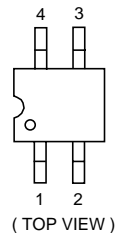
CXA2076Q-TL



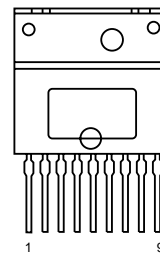
LM393P
M5216P
TDA2822M



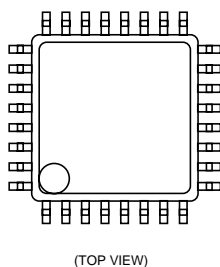
PST593C-MMP-4P



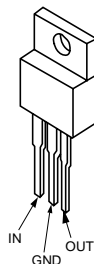
STR-S6709



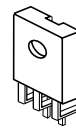
CXA2040Q-T4



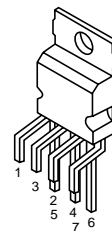
LM2940CT-5.0
LM2940CT
LM2940T-9.0
MC7809CT



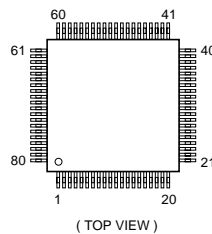
SBX1981-51



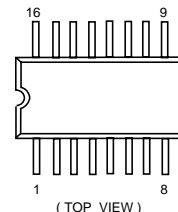
STV9379



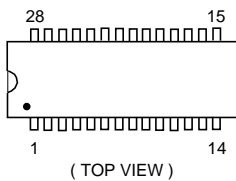
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SDA30C263-GEG
SDA5250-CS-GEG
SDA5273-CP-GEG



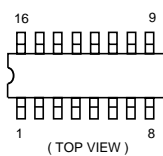
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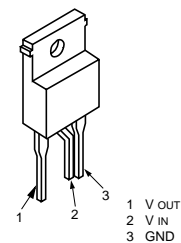
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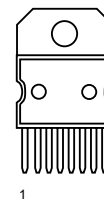
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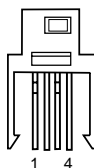
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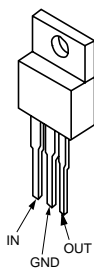
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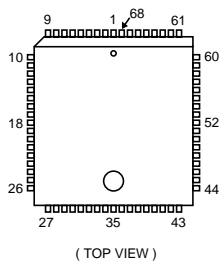
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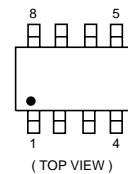
L4941BV



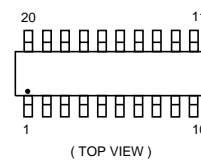
MSP3400C-PS-C6-T-S
MSP3410B-PS-F7-T



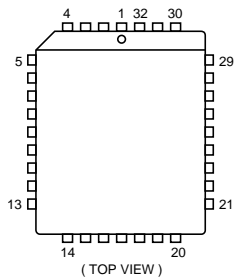
TD1387T/N1/T3
TL072CDR



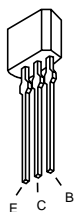
TDA8395T



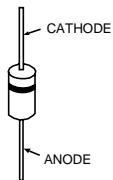
TMS27PC020-15FMBE709



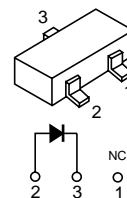
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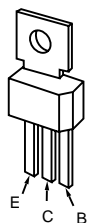
AU-01Z-V1 GP08D
EG-1Z-V1 RGP02
EL1Z RGP10GPKG23
EM1-V1 RGP15GPKG23
EU-1-V1 RU3YX-V1
FML-G12S RU4AM-T3



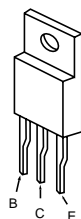
MA3030-H(TX)



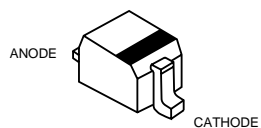
BF871-127



2SA1837

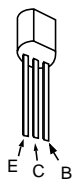


BAS216 1SS355
DTZ6.8C Udz-TE-17-5.1B
DTZ9.1 Udz-TE-17-5.6B
DTZ33B Udz-TE-17-9.1B
MA8330

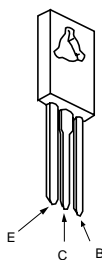


MTZJ-3.6A MTZJ-T77-22B
MTZJ-3.9B MTZJ-39
MTZJ-5.1B RD3.9ESB2
MTZJ-5.6B RD5.1ESB2
MTZJ-6.2B RD5.6ESB2
MTZJ-6.8B RD6.2ESB2
MTJ-7.5C RD6.8ESB2
MTZJ-9.1 RD7.5ESB2
MTZJ-T-77-9.1B RD10ESB2
MTZJ-10B 1SS133T-77

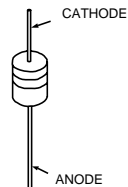
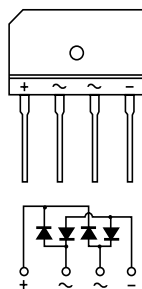
BF421L-AMMO
JA101TP-Q
2SA933AS
2SA1091-O
2SC2808STP-R
2SC3502-E



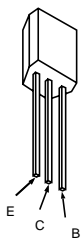
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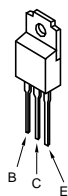
D4SB60L



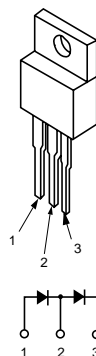
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DTC114ES
DTC143TS
DTC144ES
2SC1740S-RT



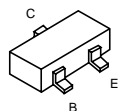
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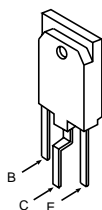
FMV-3FU



DTC114TK
DTC144EK
2SA1037K
2SA1162-G
2SC2412K



2SC4927-01



SECTION 6 EXPLODED VIEWS

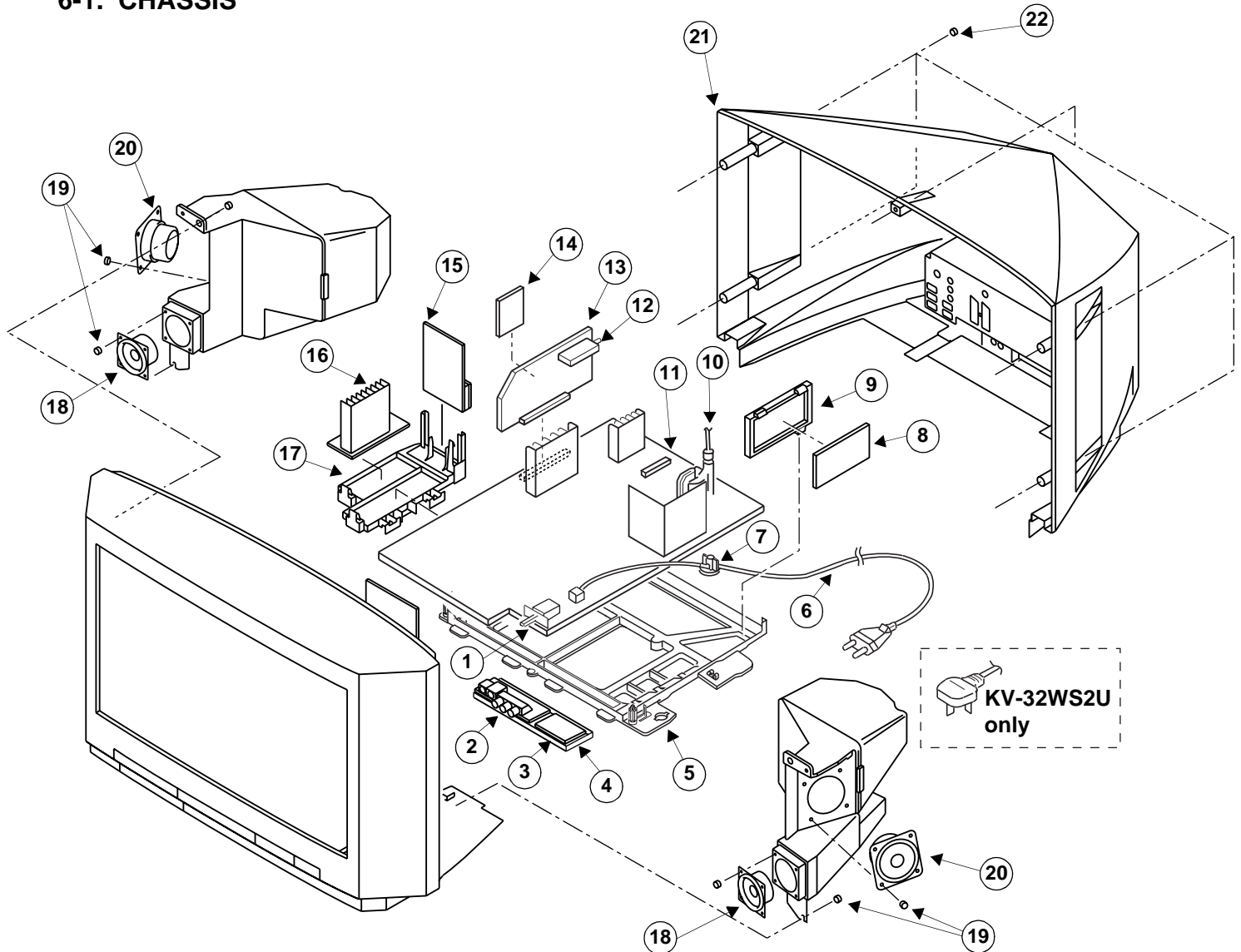
NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note : Les composants identifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces du numéro spécifié.

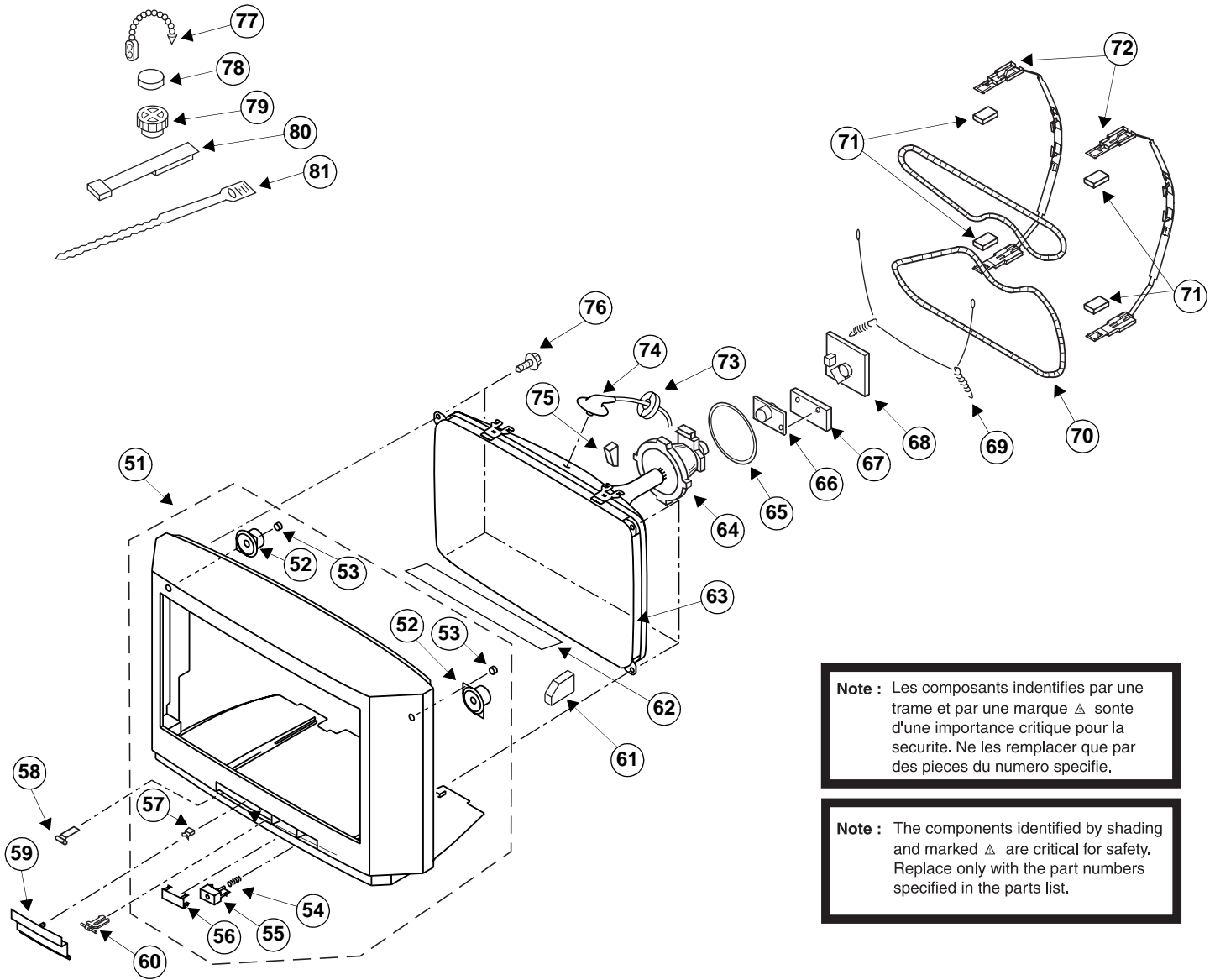
Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

6-1. CHASSIS



REF. NO.	PART. NO	DESCRIPTION	REMARK	REF. NO.	PART. NO	DESCRIPTION	REMARK
1	Δ 1-571-433-21	SWITCH, PUSH (AC POWER)			1-693-338-11	TUNER/VIF (AEP) (KV-32WS2D)	
2	*A-1646-158-A	H1 BOARD, COMPLETE			1-693-339-11	TUNER/VIF (UK) (KV-32WS2U)	
3	*A-1646-159-A	H2 BOARD, COMPLETE		13	*A-1632-516-A	A BOARD, COMPLETE (KV-32WS2B)	
4	*4-203-627-01	BRACKET, H			*A-1632-471-A	A BOARD, COMPLETE (KV-32WS2D)	
5	*4-203-315-01	BRACKET, MAIN			*A-1632-515-A	A BOARD, COMPLETE (KV-32WS2U)	
6	Δ 1-590-501-21	CORD, POWER (WITH NOISE FILTER) (KV-32WS2B/32WS2D)		14	*A-1630-490-A	A1 BOARD, COMPLETE	
	Δ 1-776-204-11	CORD, POWER (FILTER) (KV-32WS2U)		15	*A-1651-088-A	J BOARD, COMPLETE	
7	*4-202-531-01	AC CORD LOCK (SC)		16	*A-1649-018-A	K1 BOARD, COMPLETE	
8	*A-1640-284-A	D4 BOARD, COMPLETE		17	*4-203-537-01	BRACKET, J-K-T	
9	*4-203-752-01	BRACKET, D4		18	1-505-154-11	SPEAKER (6.5CM)	
10	Δ 1-453-269-11	TRANSFORMER ASSY, FLYBACK (NX-4511/U2B4)		19	4-039-355-11	SCREW (4X12), (+) BV TAPPING	
11	*A-1642-231-A	D BOARD, COMPLETE		20	1-505-155-11	SPEAKER (10CM)	
12	1-693-340-11	TUNER/VIF (FR) (KV-32WS2B)		21	4-203-582-01	COVER, REAR	
				22	4-039-358-01	SCREW (4X16), (+) BV TAPPING	

6-2. PICTURE TUBE



REF.NO.	PART.NO	DESCRIPTION	REMARK
51	*A-1603-046-A	BEZNET ASSY	52-57
52	1-504-418-21	SPEAKER (5CM)	
53	4-039-356-01	SCREW (3X12), (+) BV TAPPING	
54	4-202-964-01	SPRING	
55	4-203-581-01	BUTTON, POWER	
56	4-203-539-01	WINDOW ORNAMENTAL	
57	4-047-464-01	CATCHER, PUSH	
58	4-045-250-01	DAMPER	
59	4-203-542-11	DOOR, CONTROL	
60	4-202-555-01	SHAFT, DOOR	
61	*4-203-098-01	SUPPORTER, CRT	
62	4-203-128-11	SHEET, BLOTTING	
63	Δ 8-735-037-05	PICTURE TUBE (SD297) (W76LHT060X)	
64	Δ 8-451-492-11	DEFLECTION YOKE Y32C2A-M	
65	1-452-724-11	COIL, NA ROTATION (RT-165)	
66	8-453-011-11	NECK ASSY (NA299-M)	

REF.NO.	PART.NO	DESCRIPTION	REMARK
67	*A-1644-082-A	VM BOARD, COMPLETE	
68	*A-1638-078-A	C BOARD, COMPLETE	
69	4-200-433-01	SPRING, EXTENSION	
70	Δ 1-416-452-11	COIL, DEMAGNETIC	
71	*4-203-390-01	CUSHION DGC	
72	*4-045-294-01	HOLDER, DGC	
73	*4-203-022-01	HOLDER, HV	
74	Δ 1-251-528-21	CAP ASSY, HIGH-VOLTAGE	
75	3-704-495-01	SPACER, DY	
76	4-204-225-01	PT-SCREW	
77	4-308-870-00	CLIP, LEAD WIRE	
78	1-452-032-00	MAGNET, DISK; 10MM Ø	
79	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
80	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
81	3-701-007-00	BAND, BINDING	

SECTION 7 ELECTRICAL PARTS LIST

Note : Les composants identifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces du numéro spécifié.

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- **RESISTORS**
- All resistors are in ohms.
- F : nonflammable.

When indicating parts by reference number, please include the board name.

CAPACITORS
MF : mF, PF : mmF

COILS
MMH : mH , uH

A1

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
	*A-1630-490-A	A1 BOARD, COMPLETE *****					
		< CAPACITOR >					
C1201	1-164-695-11	CERAMIC CHIP 0.0022MF	5% 50V	C1233	1-126-967-11	ELECT 47MF 20% 16V	
C1202	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C1236	1-126-967-11	ELECT 47MF 20% 16V	
C1203	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C1237	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C1204	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C1238	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C1205	1-163-038-00	CERAMIC CHIP 0.1MF	25V			< CONNECTOR >	
C1206	1-163-038-00	CERAMIC CHIP 0.1MF	25V	CN1202	1-766-929-11	CONNECTOR, BOARD TO BOARD 8P	
C1207	1-163-038-00	CERAMIC CHIP 0.1MF	25V	CN1203	1-766-929-11	CONNECTOR, BOARD TO BOARD 8P	
C1208	1-163-038-00	CERAMIC CHIP 0.1MF	25V	CN1204	*1-564-519-11	PLUG, CONNECTOR 4P	
C1209	1-163-038-00	CERAMIC CHIP 0.1MF	25V			< DIODE >	
C1210	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D1201	8-719-988-62	DIODE 1SS355	
C1211	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D1203	8-719-976-99	DIODE DTZ5.1B	
C1212	1-126-933-11	ELECT 100MF 20% 16V				< IC >	
C1213	1-164-700-11	CERAMIC CHIP 0.68MF 16V		IC1201	8-759-377-62	IC DSP56004-FJ66R2	
C1215	1-126-967-11	ELECT 47MF 20% 16V		IC1202	8-759-527-14	IC KM62256DLG-7T	
C1216	1-163-038-00	CERAMIC CHIP 0.1MF 25V		IC1203	8-759-384-64	IC TDA1387T/N1/T3	
C1217	1-163-038-00	CERAMIC CHIP 0.1MF 25V		IC1204	8-759-384-64	IC TDA1387T/N1/T3	
C1218	1-126-964-11	ELECT 10MF 20% 50V		IC1205	8-759-387-76	IC TL072CDR	
C1219	1-126-967-11	ELECT 47MF 20% 16V		IC1206	8-759-387-76	IC TL072CDR	
C1220	1-163-145-00	CERAMIC CHIP 0.0015MF 5% 50V		IC1207	8-759-991-41	IC LM78L05ACZ	
C1221	1-163-145-00	CERAMIC CHIP 0.0015MF 5% 50V				< COIL >	
C1222	1-163-038-00	CERAMIC CHIP 0.1MF 25V		L1204	1-216-295-00	SHORT 0	
C1223	1-126-967-11	ELECT 47MF 20% 16V		L1205	1-216-295-00	SHORT 0	
C1224	1-126-967-11	ELECT 47MF 20% 16V		L1206	1-216-295-00	SHORT 0	
C1225	1-163-038-00	CERAMIC CHIP 0.1MF 25V		L1207	1-410-989-11	INDUCTOR CHIP 0.47UH	
C1226	1-163-038-00	CERAMIC CHIP 0.1MF 25V		L1208	1-216-295-00	SHORT 0	
C1227	1-126-964-11	ELECT 10MF 20% 50V		L1209	1-216-295-00	SHORT 0	
C1228	1-163-145-00	CERAMIC CHIP 0.0015MF 5% 50V		L1210	1-216-295-00	SHORT 0	
C1229	1-163-145-00	CERAMIC CHIP 0.0015MF 5% 50V		L1211	1-216-295-00	SHORT 0	
C1230	1-163-038-00	CERAMIC CHIP 0.1MF 25V		L1212	1-216-295-00	SHORT 0	
C1231	1-126-967-11	ELECT 47MF 20% 16V		L1213	1-410-989-11	INDUCTOR CHIP 0.47UH	
C1232	1-163-038-00	CERAMIC CHIP 0.1MF 25V		L1220	1-410-989-11	INDUCTOR CHIP 0.47UH	

A1

A

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
L1221	1-410-989-11	INDUCTOR CHIP 0.47UH		*A-1632-516-A	A BOARD, COMPLETE (KV-32WS2B)		
		< TRANSISTOR >			*****		
Q1201	8-729-027-44	TRANSISTOR DTC114TKA-T146		*A-1632-471-A	A BOARD, COMPLETE (KV-32WS2D)		
		< RESISTOR >			*****		
R1202	1-216-025-00	RES,CHIP 100 5% 1/10W		*A-1632-515-A	A BOARD, COMPLETE (KV-32WS2U)		
R1204	1-216-025-00	RES,CHIP 100 5% 1/10W			*****		
R1205	1-216-025-00	RES,CHIP 100 5% 1/10W		1-750-797-11	SOCKET, PLCC		
R1206	1-216-065-00	RES,CHIP 4.7K 5% 1/10W			< CAPACITOR >		
R1207	1-216-073-00	RES,CHIP 10K 5% 1/10W		C1	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R1208	1-216-073-00	RES,CHIP 10K 5% 1/10W		C2	1-126-967-11	ELECT 47MF	20% 16V
R1209	1-216-073-00	RES,CHIP 10K 5% 1/10W		C3	1-163-104-00	CERAMIC CHIP 30PF	5% 50V
R1210	1-216-073-00	RES,CHIP 10K 5% 1/10W		C4	1-163-104-00	CERAMIC CHIP 30PF	5% 50V
R1211	1-216-073-00	RES,CHIP 10K 5% 1/10W		C8	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R1212	1-216-073-00	RES,CHIP 10K 5% 1/10W		C10	1-216-073-00	RES,CHIP 10K 5%	1/10W
R1213	1-216-073-00	RES,CHIP 10K 5% 1/10W		C14	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R1214	1-216-081-00	RES,CHIP 22K 5% 1/10W		C15	1-164-695-11	CERAMIC CHIP 0.0022MF	5% 50V
R1215	1-216-081-00	RES,CHIP 22K 5% 1/10W		C18	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R1216	1-216-295-00	SHORT 0		C19	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
R1217	1-216-295-00	SHORT 0		C20	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R1218	1-216-295-00	SHORT 0		C21	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R1219	1-216-295-00	SHORT 0		C22	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R1220	1-216-001-00	RES,CHIP 10 5% 1/10W		C24	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
R1221	1-216-065-00	RES,CHIP 4.7K 5% 1/10W		C45	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R1222	1-216-065-00	RES,CHIP 4.7K 5% 1/10W		C80	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R1223	1-216-063-91	RES,CHIP 3.9K 5% 1/10W		C81	1-126-959-11	ELECT 0.47MF	20% 50V
R1224	1-216-061-00	RES,CHIP 3.3K 5% 1/10W		C82	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
R1225	1-216-025-00	RES,CHIP 100 5% 1/10W		C90	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R1226	1-216-061-00	RES,CHIP 3.3K 5% 1/10W		C101	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R1227	1-216-063-91	RES,CHIP 3.9K 5% 1/10W		C102	1-126-934-11	ELECT 220MF	20% 16V
R1228	1-216-025-00	RES,CHIP 100 5% 1/10W		C103	1-126-965-11	ELECT 22MF	20% 50V
R1229	1-216-001-00	RES,CHIP 10 5% 1/10W		C104	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R1230	1-216-063-91	RES,CHIP 3.9K 5% 1/10W		C110	1-126-967-11	ELECT 47MF	20% 16V
R1231	1-216-061-00	RES,CHIP 3.3K 5% 1/10W		C112	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
R1232	1-216-025-00	RES,CHIP 100 5% 1/10W		C113	1-126-967-11	ELECT 47MF	20% 16V
R1233	1-216-061-00	RES,CHIP 3.3K 5% 1/10W		C120	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R1234	1-216-063-91	RES,CHIP 3.9K 5% 1/10W		C121	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
R1235	1-216-025-00	RES,CHIP 100 5% 1/10W		C122	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
R1236	1-216-025-00	RES,CHIP 100 5% 1/10W		C123	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
R1237	1-216-025-00	RES,CHIP 100 5% 1/10W		C124	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R1238	1-216-025-00	RES,CHIP 100 5% 1/10W		C144	1-163-038-71	CERAMIC CHIP 0.1MF	25V
R1239	1-216-025-00	RES,CHIP 100 5% 1/10W		C201	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R1240	1-216-295-00	SHORT 0		C202	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C203	1-104-661-91	ELECT 330MF	20% 16V
				C204	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C205	1-126-965-11	ELECT 22MF	20% 50V
				C207	1-126-964-11	ELECT 10MF	20% 50V

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C208	1-126-964-11	ELECT 10MF	20% 50V	C268	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C209	1-126-964-11	ELECT 10MF	20% 50V	C269	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C210	1-216-295-00	SHORT 0		C270	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
C211	1-126-964-11	ELECT 10MF	20% 50V	C271	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C212	1-164-346-11	CERAMIC CHIP 1MF	16V	C272	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C213	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C273	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C214	1-164-346-11	CERAMIC CHIP 1MF	16V	C274	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C215	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C275	1-164-346-11	CERAMIC CHIP 1MF	16V
C216	1-126-967-11	ELECT 47MF	20% 16V	C276	1-164-346-11	CERAMIC CHIP 1MF	16V
C217	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C277	1-164-346-11	CERAMIC CHIP 1MF	16V
C218	1-126-967-11	ELECT 47MF	20% 16V	C278	1-164-346-11	CERAMIC CHIP 1MF	16V
C219	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C279	1-126-965-11	ELECT 22MF	20% 50V
C220	1-126-964-11	ELECT 10MF	20% 50V	C280	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C221	1-164-505-11	CERAMIC CHIP 2.2MF	16V	C281	1-126-965-11	ELECT 22MF	20% 50V
C222	1-164-346-11	CERAMIC CHIP 1MF	16V	C282	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C223	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C300	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C224	1-164-346-11	CERAMIC CHIP 1MF	16V	C301	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C225	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C302	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C226	1-126-967-11	ELECT 47MF	20% 16V	C303	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C227	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C304	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C228	1-126-967-11	ELECT 47MF	20% 16V	C305	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C229	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C306	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C230	1-216-295-00	SHORT 0		C307	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C231	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C308	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C232	1-126-962-11	ELECT 3.3MF	20% 50V	C309	1-164-346-11	CERAMIC CHIP 1MF	16V
C233	1-126-967-11	ELECT 47MF	20% 16V	C310	1-164-346-11	CERAMIC CHIP 1MF	16V
C238	1-126-967-11	ELECT 47MF	20% 16V	C311	1-164-346-11	CERAMIC CHIP 1MF	16V
C239	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C312	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C240	1-164-346-11	CERAMIC CHIP 1MF	16V	C313	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C241	1-164-346-11	CERAMIC CHIP 1MF	16V	C315	1-216-295-00	SHORT 0	
C251	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V	C317	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C252	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V	C319	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C253	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C320	1-126-965-11	ELECT 22MF	20% 50V
C254	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C321	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C255	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C322	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C256	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C323	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C257	1-126-965-11	ELECT 22MF	20% 50V	C324	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C258	1-126-964-11	ELECT 10MF	20% 50V	C325	1-164-346-11	CERAMIC CHIP 1MF	16V
C259	1-164-336-11	CERAMIC CHIP 0.33MF	25V	C326	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
C260	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C327	1-137-374-11	FILM 0.047MF	5% 50V
C261	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C328	1-126-964-11	ELECT 10MF	20% 50V
C262	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C329	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C263	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C330	1-137-581-11	FILM 0.1MF	5% 100V
C264	1-126-962-11	ELECT 3.3MF	20% 50V	C331	1-137-581-11	FILM 0.1MF	5% 100V
C265	1-126-964-11	ELECT 10MF	20% 50V	C332	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C266	1-126-964-11	ELECT 10MF	20% 50V	C333	1-126-933-11	ELECT 100MF	20% 16V
C267	1-126-965-11	ELECT 22MF	20% 50V	C334	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V



REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C335	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	CN203	1-766-928-11	CONNECTOR, BOARD TO BOARD 8P	
C336	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	CN301	*1-568-882-51	PIN, CONNECTOR 7P	
C337	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V			< DIODE >	
C338	1-164-346-11	CERAMIC CHIP 1MF	16V	D2	8-719-988-62	DIODE 1SS355	
C339	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D16	8-719-988-62	DIODE 1SS355	
C340	1-126-933-11	ELECT 100MF	20% 16V	D101	8-719-977-81	DIODE DTZ33B	
C341	1-164-005-11	CERAMIC CHIP 0.47MF	25V	D201	8-719-977-22	DIODE DTZ9.1	
C342	1-164-346-11	CERAMIC CHIP 1MF	16V	D202	8-719-977-22	DIODE DTZ9.1	
C343	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	D203	8-719-977-22	DIODE DTZ9.1	
C344	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	D206	8-719-977-22	DIODE DTZ9.1	
C347	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D207	8-719-977-22	DIODE DTZ9.1	
C348	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	D208	8-719-977-22	DIODE DTZ9.1	
C350	1-126-964-11	ELECT 10MF	20% 50V	D209	8-719-977-22	DIODE DTZ9.1	
C351	1-164-505-11	CERAMIC CHIP 2.2MF	16V	D210	8-719-977-22	DIODE DTZ9.1	
C352	1-164-005-11	CERAMIC CHIP 0.47MF	25V	D211	8-719-977-22	DIODE DTZ9.1	
C353	1-164-505-11	CERAMIC CHIP 2.2MF	16V	D214	8-719-977-22	DIODE DTZ9.1	
C354	1-164-005-11	CERAMIC CHIP 0.47MF	25V	D215	8-719-977-22	DIODE DTZ9.1	
C355	1-126-965-11	ELECT 22MF	20% 50V	D216	8-719-158-15	DIODE RD5.6S-B	
C356	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	D217	8-719-158-15	DIODE RD5.6S-B	
C357	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	D218	8-719-158-15	DIODE RD5.6S-B	
C358	1-164-005-11	CERAMIC CHIP 0.47MF	25V	D220	8-719-988-62	DIODE 1SS355	
C359	1-163-231-11	CERAMIC CHIP 15PF	5% 50V	D221	8-719-988-62	DIODE 1SS355	
C360	1-163-231-11	CERAMIC CHIP 15PF	5% 50V	D222	8-719-977-22	DIODE DTZ9.1	
C370	1-164-505-11	CERAMIC CHIP 2.2MF	16V	D223	8-719-977-22	DIODE DTZ9.1	
			(KV-32WS2B/32WS2D)	D224	8-719-977-22	DIODE DTZ9.1	
C371	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	D225	8-719-977-22	DIODE DTZ9.1	
C372	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	D226	8-719-977-22	DIODE DTZ9.1	
			(KV-32WS2B/32WS2D)	D227	8-719-977-13	DIODE DTZ6.8C	
C373	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	D251	8-719-047-16	DIODE BAS216	
			(KV-32WS2B/32WS2D)	D302	8-719-988-62	DIODE 1SS355	
C1001	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	D320	8-719-977-22	DIODE DTZ9.1	
C1002	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	D370	8-719-047-16	DIODE BAS216	(KV-32WS2B/32WS2D)
C1010	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D1010	8-719-036-58	DIODE MA3030-H(TX)	
C1013	1-126-965-11	ELECT 22MF	20% 50V				
C1014	1-163-038-00	CERAMIC CHIP 0.1MF	25V	D1012	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C1015	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V			< ENCAPSULATED FILTER >	
C1020	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	FL101	1-236-071-11	ENCAPSULATED COMPONENT	
		< FILTER >		FL201	1-236-071-11	ENCAPSULATED COMPONENT	
CF120	1-409-327-00	TRAP, CERAMIC (6.5MHZ)	(KV-32WS2B/32WS2D)	FL202	1-236-071-11	ENCAPSULATED COMPONENT	
		< CONNECTOR >		FL203	1-236-071-11	ENCAPSULATED COMPONENT	
CN1	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P		FL1001	1-236-071-11	ENCAPSULATED COMPONENT	
CN2	*1-564-508-11	PLUG, CONNECTOR 5P				< IC >	
CN4	1-568-878-51	PIN, CONNECTOR 3P		IC1	8-759-376-77	IC SDA30C263-GEG	(KV-32WS2B/32WS2U)
CN201	1-766-296-11	CONNECTOR, DUAL SCART			8-759-376-75	IC SDA5250M-C5-GEG	(KV-32WS2D)
CN202	1-766-928-11	CONNECTOR, BOARD TO BOARD 8P		IC2	8-759-524-94	IC M24C32-MN6T	

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
IC3	8-759-453-26	IC TMS27PC020-15FMBE709	(KV-32WS2B/32WS2D)	Q304	8-729-620-06	TRANSISTOR 2SC3052-EF	
	8-759-453-10	IC TMS27PC020-15FMBW708	(KV-32WS2U)	Q305	8-729-620-06	TRANSISTOR 2SC3052-EF	
IC4	8-759-394-57	IC PST593C-MMP-4P		Q306	1-801-806-11	TRANSISTOR DTC144EKA	
IC201	8-752-081-26	IC CXA2040AQ-T4		Q330	8-729-216-22	TRANSISTOR 2SA1037K-T-146-R	
IC202	8-759-376-80	IC MSP3410B-PS-F7-T	(KV-32WS2B/32WS2U)				
	8-759-437-97	IC MSP3400C-PS-C6-T-S	(KV-32WS2D)	Q331	8-729-620-06	TRANSISTOR 2SC3052-EF	
				Q332	8-729-620-06	TRANSISTOR 2SC3052-EF	
IC203	8-759-385-76	IC MC14052BDR2		Q1001	1-801-806-11	TRANSISTOR DTC144EKA	
IC205	8-759-394-57	IC PST593C-MMP-4P		Q1002	8-729-216-22	TRANSISTOR 2SA1162-G	
IC301	8-752-081-43	IC CXA2076Q-TL				< RESISTOR >	
IC302	8-759-288-85	IC TDA4665T-T					
IC303	8-759-430-79	IC TDA8395T/N3	(KV-32WS2B/32WS2D)	JR5	1-216-295-00	CONDUCTOR, CHIP	
IC1001	8-759-376-76	IC SDA5273CP-GEG		JR101	1-216-295-00	SHORT 0	
	< COIL >			JR102	1-216-295-00	SHORT 0	
L102	1-410-506-11	INDUCTOR 5.6UH	(KV-32WS2B/32WS2D)	JR200	1-216-295-00	SHORT 0	
L111	1-410-993-11	INDUCTOR CHIP 1UH		JR201	1-216-295-00	SHORT 0	
L120	1-408-602-31	INDUCTOR 8.2UH		JR204	1-216-295-00	SHORT 0	
L121	1-408-591-11	INDUCTOR 1UH		JR205	1-216-295-00	SHORT 0	
L122	1-408-602-31	INDUCTOR 8.2UH		JR207	1-216-295-00	SHORT 0	
				JR1010	1-216-295-00	SHORT 0	
L300	1-408-607-31	INDUCTOR 22UH		R1	1-216-049-00	RES,CHIP 1K 5% 1/10W	
	< TRANSISTOR >			R2	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q1	8-729-620-06	TRANSISTOR 2SC3052-EF		R3	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q4	8-729-620-06	TRANSISTOR 2SC3052-EF		R4	1-216-013-00	RES,CHIP 33 5% 1/10W	
Q15	8-729-216-22	TRANSISTOR 2SA1162-G		R5	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
Q80	8-729-620-06	TRANSISTOR 2SC3052-EF		R7	1-216-041-00	RES,CHIP 470 5% 1/10W	
Q81	8-729-216-22	TRANSISTOR 2SA1162-G		R9	1-216-041-00	RES,CHIP 470 5% 1/10W	
				R18	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q82	8-729-620-06	TRANSISTOR 2SC3052-EF		R19	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q110	8-729-620-06	TRANSISTOR 2SC3052-EF		R20	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q111	8-729-216-22	TRANSISTOR 2SA1162-G		R21	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q112	8-729-620-06	TRANSISTOR 2SC3052-EF		R23	1-216-041-91	RES,CHIP 470 5% 1/10W	
Q120	8-729-620-06	TRANSISTOR 2SC3052-EF		R24	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
				R25	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
Q121	8-729-620-06	TRANSISTOR 2SC3052-EF		R28	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
Q122	8-729-620-06	TRANSISTOR 2SC3052-EF					
Q124	8-729-620-06	TRANSISTOR 2SC3052-EF	(KV-32WS2B/32WS2D)	R29	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
Q130	8-729-216-22	TRANSISTOR 2SA1162-G	(KV-32WS2B/32WS2D)	R30	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
Q140	8-729-620-06	TRANSISTOR 2SC3052-EF		R31	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
				R32	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q141	8-729-620-06	TRANSISTOR 2SC3052-EF		R33	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q201	8-729-620-06	TRANSISTOR 2SC3052-EF					
Q202	8-729-620-06	TRANSISTOR 2SC3052-EF		R34	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q205	1-801-806-11	TRANSISTOR DTC144EKA		R35	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G		R39	1-216-073-00	RES,CHIP 10K 5% 1/10W	
				R46	1-216-095-00	RES,CHIP 82K 5% 1/10W	
Q207	8-729-216-22	TRANSISTOR 2SA1162-G		R48	1-216-121-91	RES,CHIP 1M 5% 1/10W	
Q208	8-729-216-22	TRANSISTOR 2SA1162-G					(KV-32WS2B/32WS2D)
Q209	8-729-620-06	TRANSISTOR 2SC3052-EF					
Q210	1-801-806-11	TRANSISTOR DTC144EKA		R49	1-216-025-00	RES,CHIP 100 5% 1/10W	
Q300	1-801-806-11	TRANSISTOR DTC144EKA					



REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
R50	1-216-065-00	RES,CHIP	4.7K 5% 1/10W	R107	1-216-295-00	SHORT	0
R51	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	R110	1-216-073-00	RES,CHIP	10K 5% 1/10W
R54	1-216-025-00	RES,CHIP	100 5% 1/10W	R111	1-216-029-00	RES,CHIP	150 5% 1/10W
R58	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R112	1-216-029-00	RES,CHIP	150 5% 1/10W
R59	1-216-025-00	RES,CHIP	100 5% 1/10W	R113	1-216-001-00	RES,CHIP	10 5% 1/10W
R60	1-216-025-00	RES,CHIP	100 5% 1/10W	R114	1-216-029-00	RES,CHIP	150 5% 1/10W
R61	1-216-025-00	RES,CHIP	100 5% 1/10W	R115	1-216-037-00	RES,CHIP	330 5% 1/10W
R62	1-216-025-00	RES,CHIP	100 5% 1/10W	R119	1-216-295-00	SHORT	0
R63	1-216-025-00	RES,CHIP	100 5% 1/10W	R120	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R64	1-216-025-00	RES,CHIP	100 5% 1/10W	R121	1-216-073-00	RES,CHIP	10K 5% 1/10W
R65	1-216-025-00	RES,CHIP	100 5% 1/10W	R122	1-216-041-00	RES,CHIP	470 5% 1/10W
R66	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R123	1-216-031-00	RES,CHIP	180 5% 1/10W
R67	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R124	1-216-049-00	RES,CHIP	1K 5% 1/10W
R68	1-216-025-00	RES,CHIP	100 5% 1/10W	R125	1-216-081-00	RES,CHIP	22K 5% 1/10W
R69	1-216-049-00	RES,CHIP	1K 5% 1/10W	R126	1-216-025-00	RES,CHIP	100 5% 1/10W
R70	1-216-025-00	RES,CHIP	100 5% 1/10W	R127	1-216-081-00	RES,CHIP	22K 5% 1/10W
R71	1-216-025-00	RES,CHIP	100 5% 1/10W	R128	1-216-035-00	RES,CHIP	270 5% 1/10W
R72	1-216-025-00	RES,CHIP	100 5% 1/10W	R129	1-216-037-00	RES,CHIP	330 5% 1/10W
R73	1-216-025-00	RES,CHIP	100 5% 1/10W	R130	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
R74	1-216-025-00	RES,CHIP	100 5% 1/10W	R131	1-216-073-00	RES,CHIP	10K 5% 1/10W
R75	1-216-025-00	RES,CHIP	100 5% 1/10W	R132	1-216-025-00	RES,CHIP	100 5% 1/10W
R76	1-216-025-00	RES,CHIP	100 5% 1/10W	R133	1-216-041-00	RES,CHIP	470 5% 1/10W
R77	1-216-025-00	RES,CHIP	100 5% 1/10W	R134	1-216-001-00	RES,CHIP	10 5% 1/10W
R78	1-216-025-00	RES,CHIP	100 5% 1/10W	R135	1-216-037-00	RES,CHIP	330 5% 1/10W
R79	1-216-033-00	RES,CHIP	220 5% 1/10W		1-216-045-00	RES,CHIP	680 5% 1/10W (KV-32WS2B/32WS2D) (KV-32WS2U)
R80	1-216-049-00	RES,CHIP	1K 5% 1/10W	R136	1-216-033-00	RES,CHIP	220 5% 1/10W
R81	1-216-081-00	RES,CHIP	22K 5% 1/10W	R137	1-216-049-00	RES,CHIP	1K 5% 1/10W
R82	1-216-065-00	RES,CHIP	4.7K 5% 1/10W	R138	1-216-041-00	RES,CHIP	470 5% 1/10W
R83	1-216-073-00	RES,CHIP	10K 5% 1/10W	R144	1-216-081-71	RES,CHIP	22K 5% 1/10W
R84	1-216-081-00	RES,CHIP	22K 5% 1/10W	R145	1-216-049-71	RES,CHIP	1K 5% 1/10W
R85	1-216-073-00	RES,CHIP	10K 5% 1/10W	R146	1-216-049-71	RES,CHIP	1K 5% 1/10W
R86	1-216-077-00	RES,CHIP	15K 5% 1/10W	R147	1-216-033-91	RES,CHIP	220 5% 1/10W
R87	1-216-081-00	RES,CHIP	22K 5% 1/10W	R148	1-216-051-91	RES,CHIP	1.2K 5% 1/10W
R88	1-216-025-00	RES,CHIP	100 5% 1/10W	R149	1-216-049-71	RES,CHIP	1K 5% 1/10W
R89	1-216-025-00	RES,CHIP	100 5% 1/10W	R150	1-216-061-91	RES,CHIP	3.3K 5% 1/10W
R91	1-216-025-00	RES,CHIP	100 5% 1/10W	R200	1-216-049-00	RES,CHIP	1K 5% 1/10W
R92	1-216-025-00	RES,CHIP	100 5% 1/10W	R201	1-216-033-00	RES,CHIP	220 5% 1/10W
R93	1-216-033-00	RES,CHIP	220 5% 1/10W	R202	1-216-033-00	RES,CHIP	220 5% 1/10W
R94	1-216-033-00	RES,CHIP	220 5% 1/10W	R203	1-216-025-00	RES,CHIP	100 5% 1/10W
R95	1-216-033-00	RES,CHIP	220 5% 1/10W	R204	1-216-025-00	RES,CHIP	100 5% 1/10W
R99	1-216-065-00	RES,CHIP	4.7K 5% 1/10W	R205	1-216-083-00	RES,CHIP	27K 5% 1/10W
R101	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R206	1-216-033-00	RES,CHIP	220 5% 1/10W
R102	1-216-025-00	RES,CHIP	100 5% 1/10W	R208	1-216-041-00	RES,CHIP	470 5% 1/10W
R103	1-216-025-00	RES,CHIP	100 5% 1/10W	R209	1-216-184-91	RES,CHIP	270 5% 1/8W
R104	1-216-073-00	RES,CHIP	10K 5% 1/10W	R210	1-216-013-00	RES,CHIP	33 5% 1/10W
R105	1-216-113-00	RES,CHIP	470K 5% 1/10W	R211	1-216-033-00	RES,CHIP	220 5% 1/10W
R106	1-216-073-00	RES,CHIP	10K 5% 1/10W				

REF.NO.	PART.NO	DESCRIPTION	REMARK			REF.NO.	PART.NO	DESCRIPTION	REMARK		
R212	1-216-022-00	RES,CHIP	75	5%	1/10W	R265	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R213	1-216-022-00	RES,CHIP	75	5%	1/10W	R270	1-216-022-00	RES,CHIP	75	5%	1/10W
R214	1-216-025-00	RES,CHIP	100	5%	1/10W	R271	1-216-022-00	RES,CHIP	75	5%	1/10W
R216	1-216-025-00	RES,CHIP	100	5%	1/10W	R272	1-216-022-00	RES,CHIP	75	5%	1/10W
R217	1-216-113-00	RES,CHIP	470K	5%	1/10W	R273	1-216-022-00	RES,CHIP	75	5%	1/10W
R218	1-216-025-00	RES,CHIP	100	5%	1/10W	R280	1-216-049-00	RES,CHIP	1K	5%	1/10W
R219	1-216-113-00	RES,CHIP	470K	5%	1/10W	R281	1-216-089-00	RES,CHIP	47K	5%	1/10W
R220	1-216-295-00	SHORT	0			R282	1-216-093-00	RES,CHIP	68K	5%	1/10W
R221	1-216-039-00	RES,CHIP	390	5%	1/10W	R284	1-216-089-00	RES,CHIP	47K	5%	1/10W
R222	1-216-089-00	RES,CHIP	47K	5%	1/10W	R285	1-216-093-00	RES,CHIP	68K	5%	1/10W
R223	1-216-295-00	SHORT	0			R287	1-216-093-00	RES,CHIP	68K	5%	1/10W
R224	1-216-039-00	RES,CHIP	390	5%	1/10W	R288	1-216-093-00	RES,CHIP	68K	5%	1/10W
R225	1-216-089-00	RES,CHIP	47K	5%	1/10W	R289	1-216-689-11	RES,CHIP	39K	5%	1/10W
R226	1-216-033-00	RES,CHIP	220	5%	1/10W	R290	1-216-689-11	RES,CHIP	39K	5%	1/10W
R227	1-216-022-00	RES,CHIP	75	5%	1/10W	R291	1-216-295-00	SHORT	0		
R228	1-216-022-00	RES,CHIP	75	5%	1/10W	R292	1-216-295-00	SHORT	0		
R229	1-216-033-00	RES,CHIP	220	5%	1/10W	R293	1-216-295-00	SHORT	0		
R230	1-216-022-00	RES,CHIP	75	5%	1/10W	R294	1-216-295-00	SHORT	0		
R232	1-216-025-00	RES,CHIP	100	5%	1/10W	R295	1-216-295-00	SHORT	0		
R233	1-216-025-00	RES,CHIP	100	5%	1/10W	R296	1-216-295-00	SHORT	0		
R234	1-216-113-00	RES,CHIP	470K	5%	1/10W	R300	1-216-025-00	RES,CHIP	100	5%	1/10W
R235	1-216-025-00	RES,CHIP	100	5%	1/10W	R301	1-216-033-00	RES,CHIP	220	5%	1/10W
R236	1-216-113-00	RES,CHIP	470K	5%	1/10W	R302	1-216-295-00	SHORT	0		
R237	1-216-295-00	SHORT	0			R303	1-216-295-00	SHORT	0		
R238	1-216-089-00	RES,CHIP	47K	5%	1/10W	R308	1-216-025-00	RES,CHIP	100	5%	1/10W
R239	1-216-039-00	RES,CHIP	390	5%	1/10W	R309	1-216-033-00	RES,CHIP	220	5%	1/10W
R240	1-216-295-00	SHORT	0			R310	1-216-033-00	RES,CHIP	220	5%	1/10W
R241	1-216-089-00	RES,CHIP	47K	5%	1/10W	R311	1-216-295-00	SHORT	0		
R242	1-216-039-00	RES,CHIP	390	5%	1/10W	R312	1-216-295-00	SHORT	0		
R243	1-216-033-00	RES,CHIP	220	5%	1/10W	R314	1-216-295-00	SHORT	0		
R244	1-216-033-00	RES,CHIP	220	5%	1/10W	R315	1-216-295-00	SHORT	0		
R245	1-216-073-00	RES,CHIP	10K	5%	1/10W	R316	1-216-033-00	RES,CHIP	220	5%	1/10W
R246	1-216-063-91	RES,CHIP	3.9K	5%	1/10W	R318	1-216-689-11	RES,CHIP	39K	5%	1/10W
R247	1-216-063-91	RES,CHIP	3.9K	5%	1/10W	R319	1-216-081-00	RES,CHIP	22K	5%	1/10W
R249	1-216-001-00	RES,CHIP	10	5%	1/10W	R320	1-216-025-00	RES,CHIP	100	5%	1/10W
R251	1-216-025-00	RES,CHIP	100	5%	1/10W	R321	1-216-025-00	RES,CHIP	100	5%	1/10W
R252	1-216-025-00	RES,CHIP	100	5%	1/10W	R322	1-216-025-00	RES,CHIP	100	5%	1/10W
R253	1-216-025-00	RES,CHIP	100	5%	1/10W	R323	1-216-033-00	RES,CHIP	220	5%	1/10W
R254	1-216-025-00	RES,CHIP	100	5%	1/10W	R324	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R255	1-216-025-00	RES,CHIP	100	5%	1/10W	R326	1-216-025-00	RES,CHIP	100	5%	1/10W
R256	1-216-025-00	RES,CHIP	100	5%	1/10W	R327	1-216-025-00	RES,CHIP	100	5%	1/10W
R257	1-216-013-00	RES,CHIP	33	5%	1/10W	R328	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R258	1-216-049-00	RES,CHIP	1K	5%	1/10W	R329	1-216-089-00	RES,CHIP	47K	5%	1/10W
R260	1-216-198-91	RES,CHIP	1K	5%	1/8W	R330	1-216-025-00	RES,CHIP	100	5%	1/10W
R261	1-216-073-00	RES,CHIP	10K	5%	1/10W	R331	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R262	1-216-061-00	RES,CHIP	3.3K	5%	1/10W	R332	1-216-025-00	RES,CHIP	100	5%	1/10W
R263	1-216-065-00	RES,CHIP	4.7K	5%	1/10W	R333	1-216-075-00	RES,CHIP	12K	5%	1/10W

A

IF (KV-32WS2B)

REF. NO.	PART.NO	DESCRIPTION	REMARK			REF. NO.	PART.NO	DESCRIPTION	REMARK
R334	1-216-041-00	RES,CHIP	470	5%	1/10W	< TUNER >			
R335	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	TU101	1-693-340-11	TUNER/VIF (FR)	(KV-32WS2B)
R336	1-216-109-00	RES,CHIP	330K	5%	1/10W		1-693-338-11	TUNER/VIF (AEP)	(KV-32WS2D)
R337	1-216-025-00	RES,CHIP	100	5%	1/10W		1-693-339-11	TUNER/VIF (UK)	(KV-32WS2U)
R338	1-216-051-00	RES,CHIP	1.2K	5%	1/10W	< CRYSTAL >			
R339	1-216-049-00	RES,CHIP	1K	5%	1/10W	X1	1-767-154-21	VIBRATOR, CERAMIC	
R340	1-216-025-00	RES,CHIP	100	5%	1/10W	X201	1-760-628-11	VIBRATOR, CRYSTAL	
R341	1-216-025-00	RES,CHIP	100	5%	1/10W	X301	1-567-504-11	OSCILLATOR, CRYSTAL	
R342	1-216-049-00	RES,CHIP	1K	5%	1/10W	X302	1-567-505-11	OSCILLATOR, CRYSTAL	
R343	1-216-061-00	RES,CHIP	3.3K	5%	1/10W	X303	1-767-127-11	VIBRATOR, CERAMIC	
R344	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	X1001	1-579-965-21	VIBRATOR, CRYSTAL	
R345	1-216-025-00	RES,CHIP	100	5%	1/10W				
R346	1-216-063-91	RES,CHIP	3.9K	5%	1/10W	*****			
R347	1-216-025-00	RES,CHIP	100	5%	1/10W	*A-1652-036-A IF BOARD, COMPLETE (KV-32WS2B)			
R348	1-216-025-00	RES,CHIP	100	5%	1/10W	*****			
R349	1-216-025-00	RES,CHIP	100	5%	1/10W	< CAPACITOR >			
R350	1-216-042-00	RES,CHIP	510	5%	1/10W	C01	1-162-638-11	CERAMIC CHIP 1MF	16V
R351	1-216-053-00	RES,CHIP	1.5K	5%	1/10W	C02	1-164-337-11	CERAMIC CHIP 2.2MF	16V
R352	1-216-077-00	RES,CHIP	15K	5%	1/10W	C03	1-104-957-11	ELECT 47MF	20% 16V
R353	1-216-033-00	RES,CHIP	220	5%	1/10W	C04	1-135-259-11	TANTAL. CHIP 10MF	20% 6.3V
R354	1-216-295-00	SHORT	0			C05	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R357	1-216-049-00	RES,CHIP	1K	5%	1/10W	C06	1-164-005-11	CERAMIC CHIP 0.47MF	16V
R358	1-216-295-00	SHORT	0			C08	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R359	1-216-097-00	RES,CHIP	100K	5%	1/10W	C09	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R361	1-216-295-91	SHORT	0			C10	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R363	1-216-295-91	SHORT	0			C11	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R365	1-216-295-91	SHORT	0			C12	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R370	1-216-295-00	SHORT	0			C13	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R1001	1-216-025-00	RES,CHIP	100	5%	1/10W	C14	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R1002	1-216-025-00	RES,CHIP	100	5%	1/10W	C15	1-104-957-11	ELECT 47MF	20% 16V
R1005	1-216-041-00	RES,CHIP	470	5%	1/10W	C16	1-162-638-11	CERAMIC CHIP 1MF	16V
R1010	1-216-295-00	SHORT	0			C17	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
R1012	1-216-041-00	RES,CHIP	470	5%	1/10W	C18	1-164-337-11	CERAMIC CHIP 2.2MF	16V
R1014	1-216-065-00	RES,CHIP	4.7K	5%	1/10W	C20	1-124-937-11	ELECT 10MF	20% 16V
R1017	1-216-295-00	SHORT	0			C21	1-164-506-11	CERAMIC CHIP 4.7MF	16V
R1020	1-216-097-00	RES,CHIP	100K	5%	1/10W	< FILTER >			
R1021	1-216-029-00	RES,CHIP	150	5%	1/10W	CF01	1-409-430-11	TRAP, CERAMIC	
R1022	1-216-029-00	RES,CHIP	150	5%	1/10W	SWF01	1-579-273-11	FILTER, SURFACE WAVE	
R1023	1-216-029-00	RES,CHIP	150	5%	1/10W	SWF02	1-760-329-11	FILTER, SURFACE WAVE	
R1024	1-216-045-00	RES,CHIP	680	5%	1/10W	SWF03	1-767-083-11	FILTER, SURFACE WAVE	
R1026	1-216-025-00	RES,CHIP	100	5%	1/10W				
R1027	1-216-025-00	RES,CHIP	100	5%	1/10W				
R1028	1-216-025-00	RES,CHIP	100	5%	1/10W				

IF (KV-32WS2B)

IF (KV-32WS2D/32WS2U)

REF.NO.	PART.NO	DESCRIPTION	REMARK
		< TRIMMER >	
CT01	1-760-662-11	TRAP, CERAMIC	
		< IC >	
IC01	8-759-069-36	IC MC74HC4046AF	
		< COIL >	
L02	1-408-406-00	INDUCTOR 5.6UH	
L04	1-408-419-00	INDUCTOR 68UH	
L05	1-410-987-11	INDUCTOR CHIP 0.33UH	
L06	1-408-399-00	INDUCTOR 1.5UH	
		< VARIABLE COIL >	
LV01	1-411-874-11	COIL	
		< TRANSISTOR >	
Q01	8-729-216-22	TRANSISTOR 2SA1162-G	
Q02	8-729-035-11	TRANSISTOR BF799-GEG	
Q03	8-729-035-11	TRANSISTOR BF799-GEG	
Q04	8-729-901-01	TRANSISTOR DTC144EK	
		< RESISTOR >	
JR01	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR02	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR03	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR04	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR05	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR07	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R01	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R02	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R03	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R04	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R05	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R06	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R07	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R08	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R09	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R10	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R11	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R12	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	
R13	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R14	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R15	1-216-017-91	METAL GLAZE 47 5% 1/10W	
R16	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R17	1-216-017-91	METAL GLAZE 47 5% 1/10W	

REF.NO.	PART.NO	DESCRIPTION	REMARK
R18	1-216-013-00	METAL GLAZE 33 5% 1/10W	
R20	1-216-222-00	METAL GLAZE 10K 5% 1/8W	
R23	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R25	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R21	1-216-174-00	METAL GLAZE 100 5% 1/8W	
		< VARIABLE RESISTOR >	
RV01	1-226-703-11	RES, ADJ, METAL GLAZE 10K	
RV02	1-226-703-11	RES, ADJ, METAL GLAZE 10K	

	*A-1652-037-A	IF BOARD, COMPLETE (KV-32WS2D)	

	*A-1652-038-A	IF BOARD, COMPLETE (KV-32WS2U)	

		< CAPACITOR >	
C01	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C02	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C03	1-104-957-11	ELECT 47MF	20% 16V
C04	1-135-259-11	TANTAL. CHIP 10MF	20% 6.3V
C05	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C06	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C08	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C09	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C10	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C11	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C15	1-124-282-00	ELECT 22MF	20% 25V
C16	1-162-638-11	CERAMIC CHIP 1MF	16V
C18	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C19	1-124-937-11	ELECT 10MF	20% 16V
		< FILTER >	
CF01	1-404-134-00	TRAP, CERAMIC (5.5MHZ)	
	1-409-333-21	TRAP, CERAMIC (6.0MHZ)	
SWF04	1-767-084-11	FILTER, SURFACE WAVE	
		< IC >	
IC01	8-759-385-26	IC TDA4472-CFLG3	
		< COIL >	
L02	1-408-408-00	INDUCTOR 8.2UH	
L04	1-408-419-00	INDUCTOR 68UH	
L08	1-410-992-11	INDUCTOR CHIP 0.82UH	

IF (KV-32WS2D/32WS2U)

C

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REF.NO.	PART.NO	DESCRIPTION					REMARK	REF.NO.	PART.NO	DESCRIPTION					REMARK
LV01	1-411-874-11	< VARIABLE COIL >						C717	1-102-114-00	CERAMIC	470PF	10%	50V		
		COIL	C718	1-102-114-00	CERAMIC	470PF	10%	50V							
			C719	1-102-114-00	CERAMIC	470PF	10%	50V							
			C722	1-101-880-00	CERAMIC	47PF	5%	50V							
			C723	1-101-880-00	CERAMIC	47PF	5%	50V							
Q01	8-729-216-22	< TRANSISTOR >													
		TRANSISTOR 2SA1162-G	C724	1-101-880-00	CERAMIC	47PF	5%	50V							
JR01	1-216-296-91	< RESISTOR >						< CONNECTOR >							
		METAL GLAZE	CN701	1-778-037-11	PIN, CONNECTOR 6P										
			CN702	1-695-915-11	TAB (CONTACT)										
			CN703	*1-568-882-51	PIN, CONNECTOR 7P										
			< DIODE >												
JR07	1-216-295-00	METAL GLAZE	0	5%	1/10W	D701	8-719-109-72	DIODE RD3.9ES-B2							
						D702	8-719-991-33	DIODE 1SS133T-77							
						D703	1-535-465-11	LEAD, JUMPER (5.0MM)							
						D704	1-535-465-11	LEAD, JUMPER (5.0MM)							
						D705	1-535-465-11	LEAD, JUMPER (5.0MM)							
R01	1-216-029-00	METAL GLAZE	150	5%	1/10W	D706	8-719-991-33	DIODE 1SS133T-77							
						D707	8-719-991-33	DIODE 1SS133T-77							
						D708	8-719-991-33	DIODE 1SS133T-77							
						D709	8-719-991-33	DIODE 1SS133T-77							
						D710	8-719-991-33	DIODE 1SS133T-77							
R02	1-216-089-91	METAL GLAZE	47K	5%	1/10W	D711	8-719-302-43	DIODE EL1Z							
						D713	1-535-465-11	LEAD, JUMPER (5.0MM)							
						D714	8-719-991-33	DIODE 1SS133T-77							
						D715	8-719-991-33	DIODE 1SS133T-77							
						D716	8-719-991-33	DIODE 1SS133T-77							
R03	1-216-089-91	METAL GLAZE	47K	5%	1/10W	D717	8-719-991-33	DIODE 1SS133T-77							
						D718	8-719-991-33	DIODE 1SS133T-77							
						D719	8-719-991-33	DIODE 1SS133T-77							
						D720	8-719-991-33	DIODE 1SS133T-77							
						< VARIABLE RESISTOR >							< CRT SOCKET >		
RV01	1-226-703-11	RES, ADJ, METAL GLAZE 10K					J701	△	1-526-990-21	SOCKET, CRT					
		*****					< COIL >								
*A-1638-078-A C BOARD, COMPLETE							L704	1-408-609-41	INDUCTOR		33UH				
*****							< TRANSISTOR >								
C702	1-102-115-00	CERAMIC	560PF	10%	50V	Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE							
						Q703	8-729-906-70	TRANSISTOR BF871-127							
						Q704	8-729-200-17	TRANSISTOR BF421L-AMMO							
						Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE							
						Q706	8-729-906-70	TRANSISTOR BF871-127							
C714	1-126-967-11	ELECT	47MF	20%	16V	Q707	8-729-200-17	TRANSISTOR BF421L-AMMO							

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE		< VARIABLE RESISTOR >			
Q709	8-729-906-70	TRANSISTOR BF871-127					
Q710	8-729-200-17	TRANSISTOR BF421L-AMMO		RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	
Q711	8-729-026-41	TRANSISTOR 2SA933AS-QRT		RV702	1-241-656-21	RES, ADJ, METAL FILM 110M	
< RESISTOR >				*****			
R704	1-216-486-00	METAL OXIDE	8.2K 5% 3W F	*A-1640-284-A D4 BOARD, COMPLETE			
R705	1-260-103-11	CARBON	2.2K 5% 1/2W	*****			
R706	1-247-815-91	CARBON	220 5% 1/4W	< CAPACITOR >			
R707	1-249-408-11	CARBON	180 5% 1/4W				
R708	1-535-143-11	LEAD, JUMPER (10.0MM)		C2802	1-128-551-11	ELECT 22MF 20% 25V	
R709	1-202-844-00	SOLID	330K 10% 1/2W	C2804	1-136-165-00	FILM 0.1MF 5% 50V	
R711	1-247-843-11	CARBON	3.3K 5% 1/4W	C2805	1-102-852-91	CERAMIC 47PF 5% 50V	
R712	1-260-103-11	CARBON	2.2K 5% 1/2W	C2806	1-136-250-11	FILM 0.001MF 2% 100V	
R714	1-216-486-00	METAL OXIDE	8.2K 5% 3W F	C2807	1-136-161-00	FILM 0.047MF 5% 50V	
R715	1-249-417-11	CARBON	1K 5% 1/4W				
R716	1-247-815-91	CARBON	220 5% 1/4W	C2808	1-136-153-00	FILM 0.01MF 5% 50V	
R717	1-249-408-11	CARBON	180 5% 1/4W	C2809	1-136-153-00	FILM 0.01MF 5% 50V	
R718	1-202-814-11	SOLID	33K 10% 1/2W	C2810	1-136-153-00	FILM 0.01MF 5% 50V	
R719	1-535-143-11	LEAD, JUMPER (10.0MM)		C2811	1-136-203-11	MYLAR 0.012MF 5% 400V	
R720	1-247-843-11	CARBON	3.3K 5% 1/4W	C2812	1-137-205-11	FILM 0.1MF 5% 400V	
R722	1-202-848-00	SOLID	680K 10% 1/2W				
R723	1-249-417-11	CARBON	1K 5% 1/4W	C2813	1-136-193-11	MYLAR 0.47MF 5% 100V	
R724	1-202-846-00	SOLID	470K 10% 1/2W	C2814	1-137-536-11	FILM 0.0022MF 5% 630V	
R726	1-260-103-11	CARBON	2.2K 5% 1/2W	C2815	1-136-205-11	FILM 0.022MF 10% 400V	
R727	1-247-815-91	CARBON	220 5% 1/4W	C2816	1-136-759-11	FILM 0.039MF 5% 630V	
R728	1-216-350-11	METAL OXIDE	1.2 5% 1W F	C2817	1-126-933-11	ELECT 100MF 20% 16V	
R729	1-249-408-11	CARBON	180 5% 1/4W				
R730	1-535-143-11	LEAD, JUMPER (10.0MM)		C2818	1-104-665-11	ELECT 100MF 20% 25V	
R731	1-247-843-11	CARBON	3.3K 5% 1/4W	C2819	1-126-933-11	ELECT 100MF 20% 16V	
R733	1-249-420-11	CARBON	1.8K 5% 1/4W	C2820	1-126-948-11	ELECT 100MF 20% 35V	
R734	1-247-807-31	CARBON	100 5% 1/4W	< CONNECTOR >			
R735	1-249-420-11	CARBON	1.8K 5% 1/4W	CN2801	1-568-878-51	PIN, CONNECTOR 3P	
R736	1-216-486-00	METAL OXIDE	8.2K 5% 3W F	CN2802	*1-580-798-11	CONNECTOR PIN (DY) 6P	
R739	1-249-417-11	CARBON	1K 5% 1/4W	CN2803	*1-580-798-11	CONNECTOR PIN (DY) 6P	
R740	1-249-420-11	CARBON	1.8K 5% 1/4W	CN2804	*1-568-879-11	PIN, CONNECTOR 4P	
R741	1-202-549-00	SOLID	100 20% 1/2W	CN2805	1-568-878-51	PIN, CONNECTOR 3P	
R744	1-249-421-11	CARBON	2.2K 5% 1/4W	CN2806	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
R745	1-249-421-11	CARBON	2.2K 5% 1/4W	< DIODE >			
R746	1-249-421-11	CARBON	2.2K 5% 1/4W	D2801	8-719-991-33	DIODE 1SS133T-77	
R747	1-249-437-11	CARBON	47K 5% 1/4W	D2802	8-719-991-33	DIODE 1SS133T-77	
R748	1-249-417-11	CARBON	1K 5% 1/4W	D2803	8-719-991-33	DIODE 1SS133T-77	
R749	1-249-435-11	CARBON	33K 5% 1/4W	D2804	8-719-979-85	DIODE EGP20G	
				D2805	8-719-970-87	DIODE ERA38-06	
				D2806	8-719-970-87	DIODE ERA38-06	
				D2807	8-719-302-43	DIODE EL1Z	
				D2808	8-719-302-43	DIODE EL1Z	

D4

D

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REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
< IC >				R2828	1-249-441-11	CARBON 100K 5%	1/4W
IC2801	8-759-103-93	IC UPC393C		R2829	1-249-441-11	CARBON 100K 5%	1/4W
IC2802	8-759-701-59	IC NJM78M09FA		R2830	1-215-907-11	METAL OXIDE 22 5%	3W F
< COIL >				R2831	1-249-377-11	CARBON 0.47 5%	1/4W F
L2801	1-406-674-11	INDUCTOR 0UH		R2832	1-249-379-11	CARBON 0.68 5%	1/4W F
L2802	1-406-989-21	INDUCTOR 0UH		< RELAY >			
L2803	1-406-989-21	INDUCTOR 0UH		RY2801	1-755-172-11	RELAY	
L2804	1-406-987-11	INDUCTOR 0UH		< TRANSFORMER >			
L2805	1-406-667-11	INDUCTOR 0UH		T2801	1-406-904-11	INDUCTOR 0UH	
< TRANSISTOR >				T2802	1-429-305-11	TRANSFORMER, FERRITE (DFT)	
Q2801	8-729-119-78	TRANSISTOR 2SC2785-HFE		*****			
Q2802	8-729-119-78	TRANSISTOR 2SC2785-HFE		*A-1642-231-A D BOARD, COMPLETE			
Q2803	8-729-119-78	TRANSISTOR 2SC2785-HFE		*****			
Q2804	8-729-119-78	TRANSISTOR 2SC2785-HFE		4-201-023-01	SPACER, INSULATING		
Q2805	8-729-119-78	TRANSISTOR 2SC2785-HFE		4-202-373-01	SPRING, IC		
Q2806	8-729-039-68	TRANSISTOR IRF620		4-202-373-01	SPRING, IC		
Q2807	8-729-119-78	TRANSISTOR 2SC2785-HFE		4-202-710-01	SPACER, INSULATING		
Q2808	8-729-043-95	TRANSISTOR 2SC3840 (3)		4-382-854-11	SCREW (M3X10), P, SW (+)		
< RESISTOR >				< CAPACITOR >			
R2801	1-249-421-11	CARBON 2.2K 5%	1/4W	C502	1-102-824-00	CERAMIC 470PF 5%	50V
R2804	1-249-437-11	CARBON 47K 5%	1/4W	C503	1-136-165-00	FILM 0.1MF 5%	50V
R2805	1-249-429-11	CARBON 10K 5%	1/4W	C504	1-102-824-00	CERAMIC 470PF 10%	50V
R2806	1-249-413-11	CARBON 470 5%	1/4W	C506	1-126-941-11	ELECT 470MF 20%	25V
R2807	1-249-429-11	CARBON 10K 5%	1/4W	C507	1-109-953-11	ELECT 2.2MF 20%	50V
R2808	1-249-441-11	CARBON 100K 5%	1/4W	C509	1-136-165-00	FILM 0.1MF 5%	50V
R2809	1-249-413-11	CARBON 470 5%	1/4W	C510	1-126-969-11	ELECT 220MF 20%	50V
R2810	1-215-477-00	METAL 220K 1%	1/4W	C511	1-136-202-11	FILM 0.33MF 5%	63V
R2811	1-215-485-00	METAL 470K 1%	1/4W	C513	1-106-220-00	MYLAR 0.1MF 10%	100V
R2812	1-215-485-00	METAL 470K 1%	1/4W	C514	1-136-165-00	FILM 0.1MF 5%	50V
R2813	1-215-467-00	METAL 82K 1%	1/4W	C515	1-126-941-11	ELECT 470MF 20%	25V
R2814	1-215-441-00	METAL 6.8K 1%	1/4W	C517	1-126-941-11	ELECT 470MF 20%	25V
R2815	1-215-469-00	METAL 100K 1%	1/4W	C518	1-102-228-00	CERAMIC 470PF 10%	500V
R2816	1-215-465-00	METAL 68K 1%	1/4W	C519	1-102-228-00	CERAMIC 470PF 10%	500V
R2817	1-215-443-00	METAL 8.2K 1%	1/4W	C520	1-126-941-11	ELECT 470MF 20%	25V
R2818	1-215-469-00	METAL 100K 1%	1/4W	C521	1-107-698-11	ELECT 10MF 20%	25V
R2819	1-249-429-11	CARBON 10K 5%	1/4W	C522	1-126-964-11	ELECT 10MF 20%	50V
R2820	1-249-425-11	CARBON 4.7K 5%	1/4W	C523	1-136-165-00	FILM 0.1MF 5%	50V
R2821	1-249-411-11	CARBON 330 5%	1/4W	C600 Δ	1-113-890-51	CERAMIC 0.0022MF 20%	250V
R2822	1-249-437-11	CARBON 47K 5%	1/4W	C601 Δ	1-161-964-91	CERAMIC 0.0047MF	250V
R2823	1-215-907-11	METAL OXIDE 22 5%	3W F	C602 Δ	1-161-964-91	CERAMIC 0.0047MF	250V
R2824	1-249-429-11	CARBON 10K 5%	1/4W	C603	1-125-555-11	ELECT (BLOCK) 330MF 20%	400V
R2825	1-249-421-11	CARBON 2.2K 5%	1/4W	C604	1-126-968-11	ELECT 100MF 20%	50V
R2826	1-249-417-11	CARBON 1K 5%	1/4W				
R2827	1-249-441-11	CARBON 100K 5%	1/4W				

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D

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C605	1-107-929-11	ELECT	10MF	20%	100V		
C606	1-162-318-11	CERAMIC	0.001MF	10%	500V		
C607	1-104-666-11	ELECT	220MF	20%	25V		
C608	1-109-880-11	FILM	0.0015MF	3%	2KV		
C611	1-102-228-00	CERAMIC	470PF	10%	500V		
C612	1-111-160-11	ELECT	22MF	20%	100V		
C613	1-124-347-00	ELECT	100MF	20%	160V		
C614	1-126-933-11	ELECT	100MF	20%	16V		
C615	1-115-789-11	ELECT	0.001F	20%	25V		
C616	1-115-789-11	ELECT	0.001F	20%	25V		
C617	1-128-339-11	ELECT	2200MF	20%	16V		
C618	1-136-165-00	FILM	0.1MF	5%	50V		
C619	1-102-228-00	CERAMIC	470PF	10%	500V		
C620	1-102-228-00	CERAMIC	470PF	10%	500V		
C621	1-136-165-00	FILM	0.1MF	5%	50V		
C622	1-107-925-11	ELECT	1MF	20%	100V		
C623	1-104-666-11	ELECT	220MF	20%	25V		
C624	1-136-165-00	FILM	0.1MF	5%	50V		
C625	1-126-967-11	ELECT	47MF	20%	50V		
C626	1-104-666-11	ELECT	220MF	20%	25V		
C628	1-126-964-11	ELECT	10MF	20%	50V		
C629	1-111-097-11	ELECT	0.0022F	20%	35V		
C630	1-111-097-11	ELECT	0.0022F	20%	35V		
C631	1-126-965-11	ELECT	22MF	20%	50V		
C632	1-104-666-11	ELECT	220MF	20%	25V		
C633	Δ 1-107-563-11	FILM	0.1MF	20%	300V		
C635	Δ 1-107-563-11	FILM	0.1MF	20%	300V		
C636	Δ 1-113-890-51	CERAMIC	0.0022MF	20%	250V		
C638	1-136-203-11	FILM	0.01MF	10%	250V		
C640	1-106-220-00	MYLAR	0.1MF	10%	100V		
C641	Δ 1-161-744-00	CERAMIC	0.01MF		400V		
C644	1-137-043-11	FILM	0.0047MF	10%	400V		
C647	1-162-116-00	CERAMIC	680PF	10%	2KV		
C651	1-102-228-00	CERAMIC	470PF	10%	500V		
C800	1-137-368-11	FILM	0.0047MF	5%	50V		
C801	1-137-372-11	FILM	0.022MF	5%	50V		
C802	1-535-465-11	LEAD, JUMPER (5.0MM)					
C804	1-136-497-81	FILM	0.01MF	5%	50V		
C805	1-136-207-11	FILM	0.047MF	10%	250V		
C806	1-104-999-11	MYLAR	0.1MF	10%	200V		
C807	1-136-540-11	FILM	0.82MF	5%	200V		
C808	1-136-946-11	FILM	0.12MF	5%	200V		
C810	1-107-683-11	ELECT	2.2MF	0	250V		
C811	1-102-212-00	CERAMIC	820PF	10%	500V		
C812	1-136-540-11	FILM	0.82MF	5%	200V		
C814	1-136-952-11	FILM	0.02MF	3%	1.4KV		
C815	1-137-046-11	FILM	0.0082MF	10%	400V		
C816	1-161-754-00	CERAMIC	0.001MF	10%	2KV		
C817	1-161-754-00	CERAMIC	0.001MF	10%	2KV		
C819	1-136-208-11	FILM	0.068MF	10%	250V		
C821	1-162-114-00	CERAMIC	0.0047MF		2KV		
C822	1-107-662-11	ELECT	22MF	20%	250V		
C824	1-123-024-21	ELECT	33MF		160V		
C829	1-126-959-11	ELECT	0.47MF	20%	50V		
C832	1-126-959-11	ELECT	0.47MF	20%	50V		
C834	1-128-551-11	ELECT	22MF	20%	25V		
C835	1-162-318-11	CERAMIC	0.001MF	10%	500V		
C836	1-162-117-00	CERAMIC	100PF	10%	500V		
C838	1-102-228-00	CERAMIC	470PF	10%	500V		
C839	1-136-207-11	FILM	0.047MF	10%	250V		
C845	1-101-880-00	CERAMIC	47PF	5%	50V		
C901	1-101-810-00	CERAMIC	100PF	5%	500V		
C904	1-126-933-11	ELECT	100MF	20%	16V		
C905	1-126-964-11	ELECT	10MF	20%	50V		
C906	1-126-964-11	ELECT	10MF	20%	50V		
C907	1-126-964-11	ELECT	10MF	20%	50V		
C908	1-126-964-11	ELECT	10MF	20%	50V		
C910	1-535-465-11	LEAD, JUMPER (5.0MM)					
C911	1-126-964-11	ELECT	10MF	20%	50V		
C913	1-101-810-00	CERAMIC	100MF	5%	500V		
C916	1-162-318-11	CERAMIC	0.001MF	10%	500V		
C1200	1-136-165-00	FILM	0.1MF	5%	50V		
C1201	1-137-194-81	FILM	0.47MF	5%	50V		
C1202	1-137-194-81	FILM	0.47MF	5%	50V		
C1203	1-136-169-00	FILM	0.22MF	5%	50V		
C1204	1-136-169-00	FILM	0.22MF	5%	50V		
C1207	1-126-933-11	ELECT	100MF	20%	16V		
C1208	1-126-963-11	ELECT	4.7MF	20%	50V		
C1209	1-126-963-11	ELECT	4.7MF	20%	50V		
C1210	1-126-941-11	ELECT	470MF	20%	25V		
C1212	1-162-318-11	CERAMIC	0.001MF	10%	500V		
C1213	1-162-318-11	CERAMIC	0.001MF	10%	500V		
C1214	1-126-933-11	ELECT	100MF	20%	16V		
C1215	1-136-173-00	FILM	0.47MF	5%	50V		
C1216	1-130-495-00	FILM	0.1MF	5%	50V		
C1217	1-130-495-00	FILM	0.1MF	5%	50V		
C1218	1-126-941-11	ELECT	470MF	20%	25V		
C1223	1-102-129-00	CERAMIC	0.01MF	10%	50V		
< CONNECTOR >							
CN600	Δ 1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P					
CN601	Δ 1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P					
CN603	Δ *1-580-844-11	PIN, CONNECTOR (POWER)					
CN611	1-900-901-05	PIN, LEAD, COATING					

D

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REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
CN612	1-900-901-05	PIN, LEAD, COATING		D620	8-719-991-33	DIODE 1SS133T-77	
CN800	*1-580-798-11	CONNECTOR PIN (DY) 6P		D622	8-719-923-60	DIODE MTZJ-T-77-9.1A	
CN801	*1-568-879-11	PIN, CONNECTOR 4P		D625	8-719-991-33	DIODE 1SS133T-77	
CN802	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		D626	8-719-046-74	DIODE AU-01Z-V1	
CN803	1-695-915-11	TAB (CONTACT)		D631	8-719-109-93	DIODE RD6.2ESB2	
CN804	1-778-037-11	PIN, CONNECTOR 6P		D637	8-719-110-17	DIODE RD10ESB2	
CN901	*1-568-881-51	PIN, CONNECTOR 6P		D800	8-719-991-33	DIODE 1SS133T-77	
CN902	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P		D801	8-719-991-33	DIODE 1SS133T-77	
CN903	*1-568-880-51	PIN, CONNECTOR 5P		D803	8-719-908-03	DIODE GP08D	
CN904	*1-568-879-11	PIN, CONNECTOR 4P		D807	8-719-302-43	DIODE EL1Z	
CN905	*1-568-878-51	PIN, CONNECTOR 3P		D808	8-719-908-03	DIODE GP08D	
CN906	*1-568-880-51	PIN, CONNECTOR 5P		D809	8-719-031-34	DIODE RGP02-20EG23	
CN1401	*1-568-880-51	PIN, CONNECTOR 5P		D810	8-719-302-43	DIODE EL1Z	
CN1407	1-564-511-11	PLUG, CONNECTOR 8P		D812	8-719-038-49	DIODE FMV-3FU-LF027-103	
CN1408	*1-568-879-11	PIN, CONNECTOR 4P		D815	8-719-908-03	DIODE GP08D	
CN1803	*1-568-878-61	PIN, CONNECTOR 3P		D817	8-719-109-85	DIODE RD5.1ESB2	
< DIODE >				D902	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D500	8-719-109-85	DIODE RD5.1ESB2		D903	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D502	8-719-979-85	DIODE EGP20G		D904	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D503	8-719-979-85	DIODE EGP20G		D905	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D504	8-719-991-33	DIODE 1SS133T-77		D906	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D505	8-719-982-03	DIODE MTZJ-3.6A		D907	8-719-109-89	DIODE RD5.6ESB2	
D506	8-719-991-33	DIODE 1SS133T-77		D910	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D507	8-719-109-85	DIODE RD5.1ESB2		D920	8-719-109-89	DIODE RD5.6ESB2	
D510	8-719-924-13	DIODE MTZJ-T-77-22B		D1201	8-719-109-72	DIODE RD3.9ES-B2	
D570	8-719-924-13	DIODE MTZJ-T-77-22B		D1202	1-535-465-11	LEAD, JUMPER (5.0MM)	
D571	8-719-924-13	DIODE MTZJ-T-77-22B		< FUSE >			
D600	8-719-510-53	DIODE D4SB60L		F601	△ 1-576-232-21	FUSE (H.B.C.) 5A/250V	
D601	8-719-046-77	DIODE EM1-V1			△ *1-533-725-11	HOLDER, FUSE (F601)	
D603	8-719-109-97	DIODE RD6.8ES-B2		< FERRITE BEAD >			
D604	8-719-046-75	DIODE EU-1-V1		FB600	1-410-397-21	FERRITE	1.1UH
D605	8-719-302-43	DIODE EL1Z		FB601	1-410-397-21	FERRITE	1.1UH
D606	8-719-302-43	DIODE EL1Z		FB602	1-410-397-21	FERRITE	1.1UH
D607	8-719-046-78	DIODE EG-1Z-V1		FB604	1-410-396-41	FERRITE	0.45UH
D608	8-719-302-06	DIODE EU2A		FB605	1-410-396-41	FERRITE	0.45UH
D609	8-719-312-10	DIODE RU4AM-T3		FB606	1-410-397-21	FERRITE	1.1UH
D610	8-719-046-74	DIODE AU-01Z-V1		FB607	1-410-397-21	FERRITE	1.1UH
D611	8-719-058-38	DIODE FMN-G12S		FB608	1-410-396-41	FERRITE	0.45UH
D612	8-719-046-76	DIODE RU3YX-LF-C4		FB801	1-410-396-41	INDUCTOR	0.45UH
D613	8-719-058-38	DIODE FMN-G12S		FB901	1-410-397-31	INDUCTOR	1.1UH
D614	8-719-058-38	DIODE FMN-G12S		FB902	1-410-397-31	INDUCTOR	1.1UH
D615	8-719-046-75	DIODE EU-1-V1		< IC >			
D616	8-719-110-03	DIODE RD7.5ESB2		IC500	8-759-192-71	IC STV9379	
D617	8-719-991-33	DIODE 1SS133T-77					
D618	8-719-991-33	DIODE 1SS133T-77					
D619	8-719-991-33	DIODE 1SS133T-77					

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REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
IC600	8-749-010-92	IC STR-S6709		Q604	8-729-024-35	TRANSISTOR 2SC2808STP-R	
IC601 Δ	8-749-013-21	IC TLP721 (D4-G,T)		Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC602	8-749-920-61	IC SE135N		Q606	8-729-900-65	TRANSISTOR DTA144ES	
IC603	8-759-144-82	IC UPC2405HF		Q607	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC604	8-759-510-52	IC L4941BV		Q801	8-729-039-68	TRANSISTOR IRF620	
IC606	8-759-267-25	IC LM2940CT-9.0		Q802	8-729-042-86	TRANSISTOR 2SC5251-01	
IC800	8-759-103-93	IC UPC393C		Q803	8-729-119-80	TRANSISTOR 2SC2688-LK	
IC1200	8-759-250-68	IC TDA7264		Q805	8-729-030-02	TRANSISTOR DTC144ESA	
IC1201	8-759-502-21	IC TDA2822M		Q900	8-729-119-78	TRANSISTOR 2SC2785-HFE	
< JACK SOCKET >				Q1200	8-729-119-78	TRANSISTOR 2SC785-HFE	
J1200	1-770-218-11	JACK, PIN		Q1201	8-729-029-94	TRANSISTOR DTC143TSA	
< COIL >				Q1202	8-729-029-66	TRANSISTOR DTC114ESA	
L501	1-535-465-11	LEAD, JUMPER (5.0MM)		Q1203	8-729-029-94	TRANSISTOR DTC143TSA	
L502	1-412-519-11	INDUCTOR 3.3UH		Q1204	8-729-029-94	TRANSISTOR DTC143TSA	
L503	1-412-519-11	INDUCTOR 3.3UH		< RESISTOR >			
L609	1-412-533-21	INDUCTOR 47UH		R500	1-215-457-00	METAL 33K 1%	1/4W
L610	1-535-465-11	LEAD, JUMPER (5.0MM)		R502	1-249-421-11	CARBON 2.2K 5%	1/4W
L611	1-412-527-11	INDUCTOR 15UH		R503	1-249-429-11	CARBON 10K 5%	1/4W
L612	1-412-522-41	INDUCTOR 5.6UH		R504	1-215-441-00	METAL 6.8K 1%	1/4W
L613	1-412-522-41	INDUCTOR 5.6UH		R505	1-249-382-11	CARBON 1.2 5%	1/4W F
L616	1-412-533-21	INDUCTOR 47UH		R506	1-215-455-00	METAL 27K 1%	1/4W
L801	1-459-111-00	INDUCTOR 0UH		R507	1-215-888-00	METAL OXIDE 220 5%	2W F
L802	1-459-104-00	COIL, WITH CORE		R508	1-216-371-00	METAL OXIDE 1.5 5%	2W F
L803	1-535-465-11	LEAD, JUMPER (5.0MM)		R509	1-249-443-11	CARBON 0.47 5%	1/4W F
L805	1-406-674-11	INDUCTOR 0UH		R510	1-249-443-11	CARBON 0.47 5%	1/4W F
L806	1-535-465-11	LEAD, JUMPER (5.0MM)		R519	1-215-451-00	METAL 18K 1%	1/4W
L809	1-408-611-31	INDUCTOR 47UH		R520	1-215-451-00	METAL 18K 1%	1/4W
L810	1-535-465-11	LEAD, JUMPER (5.0MM)		R521	1-215-457-00	METAL 33K 1%	1/4W
L811	1-406-978-11	INDUCTOR 0UH		R522	1-247-863-91	CARBON 22K 5%	1/4W
L813	1-412-552-11	INDUCTOR 2.2MMH		R523	1-247-863-91	CARBON 22K 5%	1/4W
< IC LINK >				R524	1-249-425-11	CARBON 4.7K 5%	1/4W
PS600 Δ	1-532-686-21	LINK, IC 2.7A (ICP-F75)		R525	1-249-425-11	CARBON 4.7K 5%	1/4W
PS601 Δ	1-532-686-21	LINK, IC 2.7A (ICP-F75)		R526	1-249-421-11	CARBON 2.2K 5%	1/4W
PS602 Δ	1-532-686-21	LINK, IC 2.7A (ICP-F75)		R527	1-215-433-00	METAL 3.3K 1%	1/4W
PS603 Δ	1-532-686-21	LINK, IC 2.7A (ICP-F75)		R600 Δ	1-216-490-11	METAL OXIDE 39K 5%	3W F
< TRANSISTOR >				R601	1-249-417-11	CARBON 1K 5%	1/4W
Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE		R602	1-215-473-00	METAL 150K 1%	1/4W
Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE		R603	1-215-898-11	METAL OXIDE 10K 5%	2W F
Q503	8-729-030-02	TRANSISTOR DTC144ESA		R604	1-249-420-11	CARBON 1.8K 5%	1/4W
Q601	8-729-025-04	TRANSISTOR 2SC3852A		R605	1-216-362-11	METAL OXIDE 0.27 5%	2W F
Q602	8-729-320-28	TRANSISTOR 2SA1667		R606	1-535-143-21	LEAD, JUMPER (12.5MM)	
Q603	8-729-805-05	TRANSISTOR 2SC3601-E		R607	1-216-421-11	METAL OXIDE 12 5%	1W F
				R608	1-216-365-00	METAL OXIDE 0.47 5%	2W F
				R609	1-535-465-11	LEAD, JUMPER (5.0MM)	
				R610	1-215-427-00	METAL 1.8K 1%	1/4W
				R611	1-216-354-11	METAL OXIDE 2.7 5%	1W F

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REF. NO.	PART.NO	DESCRIPTION	REMARK	REF. NO.	PART.NO	DESCRIPTION	REMARK
R612	1-249-428-11	CARBON	8.2K 5% 1/4W	R821	1-215-909-11	METAL OXIDE	47 5% 3W F
R613	1-249-417-11	CARBON	1K 5% 1/4W	R822	1-215-868-00	METAL OXIDE	680 5% 1W F
R614	1-215-877-11	METAL OXIDE	22K 5% 1W F	R823	1-216-456-21	METAL OXIDE	820 5% 2W F
R615	1-249-435-11	CARBON	33K 5% 1/4W	R824	1-249-420-11	CARBON	1.8K 5% 1/4W
R616	1-215-471-00	METAL	120K 1% 1/4W	R825	1-215-884-11	METAL OXIDE	47 5% 2W F
R617	1-215-901-00	METAL OXIDE	33K 5% 2W F	R826	1-247-752-11	CARBON	1K 5% 1/2W
R618	1-247-863-91	CARBON	22K 5% 1/4W	R827	1-249-425-11	CARBON	4.7K 5% 1/4W
R619	1-216-425-11	METAL OXIDE	56 5% 1W F	R828	1-249-432-11	CARBON	18K 5% 1/4W
R620	1-260-131-11	CARBON	470K 5% 1/2W	R829	1-260-120-11	CARBON	56K 5% 1/2W
R621	1-216-425-11	METAL OXIDE	56 5% 1W F	R830	1-217-778-11	FUSIBLE	1K 5% 1W F
R622	1-249-437-11	CARBON	47K 5% 1/4W	R831	1-535-465-11	LEAD, JUMPER (5.0MM)	
R623	1-249-429-11	CARBON	10K 5% 1/4W	R833	1-249-441-11	CARBON	100K 5% 1/4W
R624	1-249-393-11	CARBON	10 5% 1/4W F	R835	1-215-907-51	METAL OXIDE	22 5% 3W F
R625	1-249-434-11	CARBON	27K 5% 1/4W	R836	1-249-439-11	CARBON	68K 5% 1/4W
R626	1-249-430-11	CARBON	12K 5% 1/4W	R837	1-249-436-11	CARBON	39K 5% 1/4W
R627	1-216-347-11	METAL OXIDE	0.68 5% 1W F	R840	1-247-807-31	CARBON	100 5% 1/4W
R628	1-249-415-11	CARBON	680 5% 1/4W F	R841	1-249-418-11	CARBON	1.2K 5% 1/4W
R629 Δ	1-260-135-11	CARBON	1M 5% 1/2W	R844	1-535-143-11	LEAD, JUMPER (10.0MM)	
R630 Δ	1-218-265-11	METAL	8.2M 5% 1W	R846	1-249-440-11	CARBON	82K 5% 1/4W
R631 Δ	1-202-961-11	CEMENTED	1.8 5% 10W	R847	1-259-880-11	CARBON	2.2M 5% 1/4W
R632	1-247-807-31	CARBON	100 5% 1/4W	R848	1-247-903-00	CARBON	1M 5% 1/4W
R633	1-247-807-31	CARBON	100 5% 1/4W	R851	1-215-898-11	METAL OXIDE	10K 5% 2W F
R634	1-249-397-11	CARBON	22 5% 1/4W F	R852	1-249-432-11	CARBON	18K 5% 1/4W
R635	1-249-437-11	CARBON	47K 5% 1/4W	R853	1-216-361-00	METAL OXIDE	0.22 5% 2W F
R636	1-249-417-11	CARBON	1K 5% 1/4W	R901	1-247-734-11	CARBON	39 5% 1/2W
R637	1-247-815-91	CARBON	220 5% 1/4W	R902	1-247-734-11	CARBON	39 5% 1/2W
R638	1-247-863-91	CARBON	22K 5% 1/4W	R904	1-249-389-11	CARBON	4.7 5% 1/4W F
R639	1-215-425-00	METAL	1.5K 1% 1/4W	R907	1-247-804-11	CARBON	75 5% 1/4W
R642 Δ	1-202-961-11	CEMENTED	1.8 5% 10W	R908	1-249-401-11	CARBON	47 5% 1/4W
R645	1-249-422-11	CARBON	2.7K 5% 1/4W	R909	1-249-429-11	CARBON	10K 5% 1/4W
R646	1-249-377-11	CARBON	0.47 5% 1/4W F	R922	1-247-807-31	CARBON	100 5% 1/4W
R647	1-202-933-61	FUSIBLE	0.1 10% 1/2W F	R923	1-249-421-11	CARBON	2.2K 5% 1/4W
R649	1-249-426-11	CARBON	5.6K 5% 1/4W	R925	1-535-465-11	LEAD, JUMPER (5.0MM)	
R800	1-249-429-11	CARBON	10K 5% 1/4W	R1200	1-249-425-11	CARBON	4.7K 5% 1/4W
R802	1-249-429-11	CARBON	10K 5% 1/4W	R1201	1-249-434-11	CARBON	27K 5% 1/4W
R803	1-249-427-11	CARBON	6.8K 5% 1/4W	R1202	1-249-389-11	CARBON	4.7 5% 1/4W F
R805	1-249-429-11	CARBON	10K 5% 1/4W	R1203	1-249-421-11	CARBON	2.2K 5% 1/4W
R809	1-247-897-11	CARBON	560K 5% 1/4W	R1204	1-249-421-11	CARBON	2.2K 5% 1/4W
R812	1-249-421-11	CARBON	2.2K 5% 1/4W	R1205	1-249-428-11	CARBON	8.2K 5% 1/4W
R813	1-215-869-11	METAL OXIDE	1K 5% 1W F	R1206	1-249-428-11	CARBON	8.2K 5% 1/4W
R814	1-249-381-91	CARBON	1 5% 1/4W F	R1207	1-249-413-11	CARBON	470 5% 1/4W
R815	1-249-381-91	CARBON	1 5% 1/4W F	R1208	1-212-849-00	FUSIBLE	4.7 5% 1/4W F
R816	1-216-456-21	METAL OXIDE	820 5% 2W F	R1209	1-212-849-00	FUSIBLE	4.7 5% 1/4W F
R817	1-216-456-21	METAL OXIDE	820 5% 2W F	R1210	1-249-413-11	CARBON	470 5% 1/4W
R818	1-215-884-11	METAL OXIDE	47 5% 2W F	R1211	1-249-424-11	CARBON	3.9K 5% 1/4W
R819	1-535-143-71	LEAD, JUMPER (7.5MM)		R1212	1-249-424-11	CARBON	3.9K 5% 1/4W
R820	1-249-403-11	CARBON	68 5% 1/4W	R1213	1-249-421-11	CARBON	2.2K 5% 1/4W

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REF.NO.	PART.NO	DESCRIPTION	REMARK			REF.NO.	PART.NO	DESCRIPTION	REMARK		
R1216	1-249-413-11	CARBON	470	5%	1/4W	C1723	1-161-830-00	CERAMIC	0.0047MF		500V
R1217	1-249-425-11	CARBON	4.7K	5%	1/4W	C1725	1-128-551-11	ELECT	22MF	20%	25V
R1218	1-535-465-11	LEAD, JUMPER (5.0MM)				C1726	1-126-934-11	ELECT	220MF	20%	16V
R1219	1-249-417-11	CARBON	1K	5%	1/4W	C1801	1-104-664-11	ELECT	47MF	20%	25V
< RELAY >						C1803	1-137-368-11	FILM	0.0047MF	5%	50V
RY600 Δ 1-755-018-11 RELAY						C1804	1-126-964-11	ELECT	10MF	20%	50V
< SWITCH >						C1805	1-137-366-11	FILM	0.0022MF	5%	50V
S601 Δ 1-571-433-21 SWITCH, PUSH (AC POWER)						< CONNECTOR >					
S801 1-572-707-21 SWITCH, LEVER						CN1015	*1-568-880-51	PIN, CONNECTOR	5P		
< SPARK GAP >						CN1718	*1-770-723-11	CONNECTOR, BOARD TO BOARD	8P		
SG801 1-519-422-11 GAP, SPARK						CN1719	1-568-878-51	PIN, CONNECTOR	3P		
SG802 1-519-422-11 GAP, SPARK						CN1801	*1-568-878-51	PIN, CONNECTOR	3P		
< TRANSFORMER >						CN1802	*1-568-878-51	PIN, CONNECTOR	3P		
LF600 Δ 1-431-402-11 TRANSFORMER, LINE FILTER						< DIODE >					
LF601 Δ 1-431-402-11 TRANSFORMER, LINE FILTER						D1701	8-719-991-33	DIODE	1SS133T-77		
T601 Δ 1-431-170-11 TRANSFORMER, CONVERTER						D1702	8-719-110-88	DIODE	RD39ES-B2		
T800 1-426-981-11 TRANSFORMER, FERRITE (PMT)						D1703	8-719-110-88	DIODE	RD39ES-B2		
T803 Δ 1-453-269-11 FBT ASSY, NX-4511/U2B4						D1801	8-719-929-15	DIODE	HZS9.1NB2		
T804 1-437-090-31 HDT						< IC >					
T805 1-429-306-11 TRANSFORMER, HORIZONTAL LINEAR						IC1801	8-759-701-59	IC	NJM7809FA		
< THERMISTOR >						IC1802	8-759-603-37	IC	M5216P		
THP600 Δ 1-809-827-11 THERMISTOR, POSITIVE						< COIL >					
*****						L1701	1-408-603-31	INDUCTOR	10UH		
*A-1644-082-A VM BOARD, COMPLETE						L1702	1-408-597-31	INDUCTOR	3.3UH		
*****						L1703	1-408-603-31	INDUCTOR	10UH		
< CAPACITOR >						L1704	1-408-612-31	INDUCTOR	56UH		
C1701	1-126-933-11	ELECT	100MF	20%	16V	L1705	1-408-612-31	INDUCTOR	56UH		
C1702	1-128-551-11	ELECT	22MF	20%	25V	< IC LINK >					
C1703	1-126-933-11	ELECT	100MF	20%	16V	PS1801 Δ 1-532-605-11	LINK, IC 0.4A	(ICP-F10)			
C1704	1-107-357-11	FILM	0.47MF	5%	100V	< TRANSISTOR >					
C1705	1-107-638-11	ELECT	33MF	20%	160V	Q1701	8-729-119-78	TRANSISTOR	2SC2785-HFE		
C1706	1-104-999-11	FILM	0.1MF	5%	200V	Q1702	8-729-119-78	TRANSISTOR	2SC2785-HFE		
C1707	1-137-397-11	FILM	0.047MF	5%	100V	Q1703	8-729-017-05	TRANSISTOR	2SA1837		
C1708	1-137-364-11	FILM	0.001MF	5%	50V		*4-368-683-21	SPRING, TRANSISTOR (Q1703)			
C1709	1-137-364-11	FILM	0.001MF	5%	50V	Q1704	8-729-119-78	TRANSISTOR	2SC2785-HFE		
C1710	1-102-074-00	CERAMIC	0.001MF	10%	50V	Q1706	8-729-017-06	TRANSISTOR	2SC4793		
C1720	1-107-667-11	ELECT	2.2MF	20%	160V		*4-368-683-21	SPRING, TRANSISTOR (Q1706)			
C1721	1-137-397-11	FILM	0.047MF	5%	100V	Q1708	8-729-119-78	TRANSISTOR	2SC2785-HFE		
C1722	1-126-934-11	ELECT	220MF	20%	16V	Q1709	8-729-119-78	TRANSISTOR	2SC2785-HFE		

REF.NO.	PART.NO	DESCRIPTION				REMARK	REF.NO.	PART.NO	DESCRIPTION				REMARK
< RESISTOR >							CN956	*1-568-880-51	PIN, CONNECTOR 5P				
R1701	1-249-417-11	CARBON	1K	5%	1/4W		< JACK SOCKET >						
R1702	1-249-417-11	CARBON	1K	5%	1/4W								
R1703	1-249-421-11	CARBON	2.2K	5%	1/4W		J900	1-764-606-11	JACK				
R1704	1-249-415-11	CARBON	680	5%	1/4W		< COIL >						
R1705	1-247-815-91	CARBON	220	5%	1/4W								
R1706	1-247-815-91	CARBON	220	5%	1/4W		L901	1-414-183-41	INDUCTOR	10UH			
R1708	1-249-412-11	CARBON	390	5%	1/4W		L902	1-414-183-41	INDUCTOR	10UH			
R1712	1-260-311-11	CARBON	39	5%	1/2W		L903	1-414-183-41	INDUCTOR	10UH			
R1713	1-249-384-11	CARBON	1.8	5%	1/4W F		L904	1-414-183-41	INDUCTOR	10UH			
R1714	1-249-414-11	CARBON	560	5%	1/4W F		< RESISTOR >						
R1715	1-249-432-11	CARBON	18K	5%	1/4W								
R1716	1-249-417-11	CARBON	1K	5%	1/4W F		R905	1-247-804-11	CARBON	75	5%	1/4W	
R1717	1-216-476-11	METAL OXIDE	180	5%	3W F		R906	1-247-804-11	CARBON	75	5%	1/4W	
R1718	1-249-432-11	CARBON	18K	5%	1/4W		R910	1-249-422-11	CARBON	2.7K	5%	1/4W	
R1719	1-249-384-11	CARBON	1.8	5%	1/4W F		R911	1-249-426-11	CARBON	5.6K	5%	1/4W	
							R912	1-249-429-11	CARBON	10K	5%	1/4W	
R1720	1-249-400-11	CARBON	39	5%	1/4W F								
R1721	1-249-414-11	CARBON	560	5%	1/4W		R913	1-247-863-91	CARBON	22K	5%	1/4W	
R1722	1-249-401-11	CARBON	47	5%	1/4W		R914	1-249-437-11	CARBON	47K	5%	1/4W	
R1724	1-249-400-11	CARBON	39	5%	1/4W		R915	1-535-465-11	LEAD, JUMPER (5.0MM)				
R1725	1-216-451-11	METAL OXIDE	120	5%	2W F		R919	1-249-437-11	CARBON	47K	5%	1/4W	
							R921	1-249-437-11	CARBON	47K	5%	1/4W	
R1728	1-249-413-11	CARBON	470	5%	1/4W								
R1729	1-249-413-11	CARBON	470	5%	1/4W		R922	1-247-807-31	CARBON	100	5%	1/4W	
R1730	1-249-422-11	CARBON	2.7K	5%	1/4W		< SWITCH >						
R1731	1-249-411-11	CARBON	330	5%	1/4W								
R1806	1-247-883-00	CARBON	150K	5%	1/4W		S900	1-692-979-21	SWITCH, TACTILE				
							S901	1-692-979-21	SWITCH, TACTILE				
R1807	1-249-429-11	CARBON	10K	5%	1/4W		S902	1-692-979-21	SWITCH, TACTILE				
R1808	1-249-429-11	CARBON	10K	5%	1/4W		*****						
R1809	1-249-429-11	CARBON	10K	5%	1/4W		*A-1646-159-A H2 BOARD, COMPLETE						
R1810	1-249-429-11	CARBON	10K	5%	1/4W		*****						
*****							*A-1646-158-A H1 BOARD, COMPLETE						
*****							*****						
< CAPACITOR >							< CAPACITOR >						
C902	1-137-372-11	FILM	0.022MF	5%	50V		C900	1-136-166-00	FILM	0.12MF	5%	50V	
C903	1-137-372-11	FILM	0.022MF	5%	50V		C904	1-126-964-11	ELECT	10MF	20%	50V	
C907	1-126-964-11	ELECT	10MF	20%	50V		C905	1-126-933-11	ELECT	100MF	20%	16V	
C911	1-126-964-11	ELECT	10MF	20%	50V		C914	1-101-004-00	CERAMIC	0.01MF		50V	
C916	1-137-040-11	FILM	0.0022MF	10%	400V		< CONNECTOR >						
< CONNECTOR >							CN971	*1-568-881-51	PIN, CONNECTOR 6P				
< DIODE >							< DIODE >						
CN900	1-779-947-21	TERMINAL BLOCK, S					D901	8-719-302-47	DIODE SEL1210S-CD				
CN953	*1-568-880-51	PIN, CONNECTOR 5P						*4-203-258-11	HOLDER, LED (D901)				
CN954	*1-568-879-11	PIN, CONNECTOR 4P					D907	8-719-109-89	DIODE RD5.6ESB2				
CN955	*1-568-878-51	PIN, CONNECTOR 3P											

H2

K1

J

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
< IC >				< TRANSISTOR >			
IC900	8-742-014-11	HYB IC SBX1981-51		Q260	8-729-029-94	TRANSISTOR DTC143TSA	
IC901	8-749-012-12	IC IS474		Q261	8-729-119-78	TRANSISTOR 2SC2785-HFE	
< RESISTOR >				< RESISTOR >			
R900	1-247-815-91	CARBON	220 5% 1/4W	R260	1-535-465-11	LEAD, JUMPER (5.0MM)	
R904	1-249-389-11	CARBON	4.7 5% 1/4W F	R261	1-249-413-11	CARBON 470 5% 1/4W	
R908	1-249-401-11	CARBON	47 5% 1/4W	R262	1-249-421-11	CARBON 2.2K 5% 1/4W	
R924	1-259-884-11	CARBON	4.7M 5% 1/4W	R263	1-249-434-11	CARBON 27K 5% 1/4W	
R925	1-247-807-31	CARBON	100 5% 1/4W	R264	1-249-425-11	CARBON 4.7K 5% 1/4W	
R926	1-259-884-11	CARBON	4.7M 5% 1/4W	R265	1-247-863-91	CARBON 22K 5% 1/4W	
*****				R266	1-249-424-11	CARBON 3.9K 5% 1/4W	
*A-1649-018-A K1 BOARD, COMPLETE				R267	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
*****				R268	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
< CAPACITOR >				*****			
C261	1-136-173-00	FILM	0.47MF 5% 50V	*A-1651-088-A J BOARD, COMPLETE			
C262	1-136-165-00	FILM	0.1MF 5% 50V	*****			
C263	1-136-173-00	FILM	0.47MF 5% 50V	< CAPACITOR >			
C264	1-136-173-00	FILM	0.47MF 5% 50V	C289	1-101-004-00	CERAMIC 0.01MF 50V	
C265	1-137-366-11	FILM	0.0022MF 5% 50V	C290	1-101-003-00	CERAMIC 0.0047MF 50V	
C266	1-137-366-11	FILM	0.0022MF 5% 50V	C291	1-101-005-00	CERAMIC 0.022MF 50V	
C267	1-136-169-00	FILM	0.22MF 5% 50V	C293	1-101-003-00	CERAMIC 0.0047MF 50V	
C268	1-136-169-00	FILM	0.22MF 5% 50V	C294	1-101-005-00	CERAMIC 0.022MF 50V	
C270	1-101-005-00	CERAMIC	0.022MF 50V	C296	1-101-003-00	CERAMIC 0.0047MF 50V	
C271	1-126-952-11	ELECT	1000MF 20% 35V	C297	1-101-005-00	CERAMIC 0.022MF 50V	
C272	1-126-952-11	ELECT	1000MF 20% 35V	C299	1-101-004-00	CERAMIC 0.01MF 50V	
< CONNECTOR >				< CONNECTOR >			
CN1303	*1-568-879-11	PIN, CONNECTOR 4P		CN1204	*1-564-519-11	PLUG, CONNECTOR 4P	
CN1304	*1-568-879-11	PIN, CONNECTOR 4P		CN1206	*1-564-518-11	PLUG, CONNECTOR 3P	
CN1306	1-568-878-51	PIN, CONNECTOR 3P		CN1208	*1-564-519-11	PLUG, CONNECTOR 4P	
CN1307	*1-564-511-11	PLUG, CONNECTOR 8P		CN1210	*1-564-519-11	PLUG, CONNECTOR 4P	
< DIODE >				CN1211	*1-564-519-11	PLUG, CONNECTOR 4P	
D260	8-719-109-72	DIODE RD3.9ES-B2		< SOCKET >			
< IC >				J291	1-537-339-11	TERMINAL BOARD	
IC260	8-759-250-68	IC TDA7264		J292	1-537-339-11	TERMINAL BOARD	
	4-202-373-01	SPRING, IC (IC260)		< RESISTOR >			
	4-202-710-01	SPACER, INSULATING (IC260)		R290	1-249-426-11	CARBON 5.6K 5% 1/4W	
				R291	1-249-426-11	CARBON 5.6K 5% 1/4W	
				R292	1-249-426-11	CARBON 5.6K 5% 1/4W	

The components identified by shading and marked **△** are critical for safety
Replace only with the part number specified.

REF.NO.	PART.NO	DESCRIPTION	REMARK
MISCELLANEOUS *****			
△	1-416-452-11	COIL, DEMAGNETIC	
	1-452-032-00	MAGNET, DISK; 10MM Ø	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
	1-452-724-11	COIL NA ROTATION (RT-165)	
△	1-453-269-11	TRANSFORMER ASSY, FLYBACK (NX-4511/U2B4)	
	1-504-418-21	SPEAKER (5CM)	
	1-505-154-11	SPEAKER (6.5CM)	
	1-505-155-11	SPEAKER (10CM)	
△	1-251-528-21	CAP ASSY, HIGH-VOLTAGE	
△	1-571-433-21	SWITCH, PUSH (AC POWER)	
	1-693-340-11	TUNER/VIF (FR) (KV-32WS2B)	
	1-693-338-11	TUNER/VIF (AEP) (KV-32WS2D)	
	1-693-339-11	TUNER/VIF (UK) (KV-32WS2U)	
△	1-590-501-21	CORD, POWER (WITH NOISE FILTER) (KV-32WS2B/32WS2D)	
△	1-776-204-11	CORD, POWER (FILTER) (KV-32WS2U)	
△	8-451-492-11	DEFLECTION YOKE Y32C2A-M	
	8-453-011-11	NECK ASSY, (NA299-M)	
△	8-735-037-05	PICTURE TUBE (SD297) (W76LHT060X)	

REF.NO.	PART.NO	DESCRIPTION	REMARK
ACCESSORIES AND PACKING MATERIALS *****			
	1-765-654-11	CABLE SPEAKER	
	4-203-538-51	MANUAL, INSTRUCTION (KV-32WS2B) (FRENCH/DUTCH)	
	4-203-538-11	MANUAL, INSTRUCTION (KV-32WS2D) (ENGLISH/GERMAN)	
	4-203-538-61	MANUAL, INSTRUCTION (KV-32WS2U) (ENGLISH)	
*4-203-160-11	CUSHION (UPPER) (ASSY)		
*4-203-163-11	CUSHION (LOWER) (ASSY)		
*4-203-158-11	INDIVIDUAL CARTON		
*4-046-772-01	BAG, PROTECTION		
REMOTE COMMANDER *****			
	1-473-692-11	COMMANDER, STANDARD TYPE (RM-862)	
